

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: FRED ZITNER Examiner #: 69047 Date: 12/31/02
Art Unit: 1713 Phone Number 308-2461 Serial Number: 09/936495
Mail Box and Bldg/Room Location: CP3-8E14 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Fluorinated Alkyl Ether Polymer
Inventors (please provide full names): Monta et al. 31

Earliest Priority Filing Date: 3/11/99

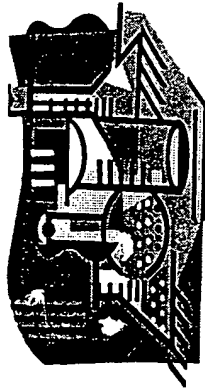
For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

To search copolymer of claim 1 containing monomer units of formulae (1) and (2).

If a copolymer is not found homopolymers or copolymers containing each of monomer units are of interest

Thay
78

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>K. F. Miller</u>	NA Sequence (#)	STN <input checked="" type="checkbox"/>	
Searcher Phone #:	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#) <u>4</u>	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	Dr. Link	
Date Completed: <u>12/31/02</u>	Litigation	Lexis/Nexis	
Searcher Prep & Review Time: <u>20</u>	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time: <u>40</u>	Other	Other (specify)	



EIC 1700 / LUTRELLE F. PARKER LAW LIBRARY



Scientific and Technical Information Center

Search Results Feedback Form

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

Kathleen Fuller 308-4290

John Calve 308-4139

Barba Koroma 305-3542

Eric Linnell 308-4143

All searchers are located in the library in CP3/4 3D62

EIC1700

Search Results

Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact*:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62.

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example:

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

Drop off completed forms in CP3/4 - 3D62 .

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:48:42 ON 31 DEC 2002
USE IS ~~SUBJECT~~ TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 30 DEC 2002 HIGHEST RN 477836-17-2
DICTIONARY FILE UPDATES: 30 DEC 2002 HIGHEST RN 477836-17-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 10:48:47 ON 31 DEC 2002
USE IS ~~SUBJECT~~ TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN. Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

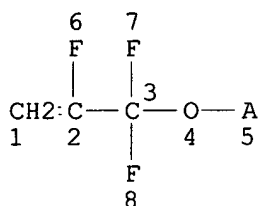
FILE COVERS 1907 - 31 Dec 2002 VOL 138 ISS 1
FILE LAST UPDATED: 30 Dec 2002 (20021230/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> D QUE

L31 STR



86 polymers from this query

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

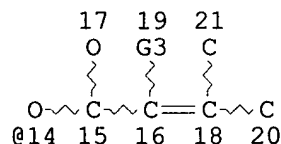
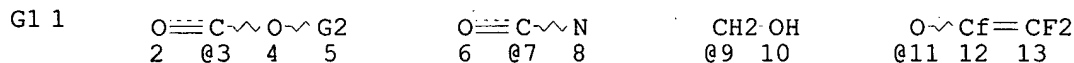
GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L33 SCR 2043

L35 86 SEA FILE=REGISTRY SSS FUL L31 AND L33

L37 STR



Subset search of the
 86 polymers with
 formula 2

VAR G1=3/7/9/11/14

VAR G2=AK/H

VAR G3=F/H/CL/CF3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

72 polymers

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L39 72 SEA FILE=REGISTRY SUB=L35 SSS FUL L37

L40 66 SEA FILE=REGISTRY ABB=ON L39 AND 2-10/NC

L41 47 SEA FILE=HCAPLUS ABB=ON L40

L43 44 SEA FILE=HCAPLUS ABB=ON L41(L) (PREP OR IMF OR SPN)/RL

=> D L43 ALL 1-44 HITSTR

L43 ANSWER 1 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:889052 HCAPLUS

DN 137:377225

TI Nonlinear optical material containing fluoropolymer

IN Araki, Takayuki; Tanaka, Yoshito; Ohashi, Mihoko; Komatsu, Yuzo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 111 pp.

44 preparations
 of polymers with
 2 or more
 monomer
 components

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G02F001-361

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002093249	A1	20021121	WO 2002-JP4729	20020516
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-147649 A 20010517

AB The invention refers to a fluoro-resein compn. for use in nonlinear optical materials comprising a fluoro-prepolymer and an org. compd. having a 2nd- or higher-order, nonlinear optical effect, wherein the fluoro-prepolymer (I) is a noncryst. polymer having F content of .gtoreq. 25% and has a C-C double bond in a polymer side chain or at the end of the polymer backbone, in order allow the fluoro-prepolymer to form a stable structure with the nonlinear optical compd. and to produce nonlinear optical waveguides with transparency in the near IR.

ST nonlinear optical waveguide fluoropolymer IR transmission

IT Optical transmission

(IR; nonlinear optical material contg. fluoropolymer)

IT Nonlinear optical materials

(nonlinear optical material contg. fluoropolymer)

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)

(nonlinear optical material contg. fluoropolymer)

IT Optical waveguides

(nonlinear; nonlinear optical material contg. fluoropolymer)

IT 443791-00-2

RL: DEV (Device component use); USES (Uses)

(nonlinear optical material contg. fluoropolymer)

IT 99-52-5

RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(nonlinear optical material contg. fluoropolymer)

IT 292163-49-6P 292163-51-0P 460357-20-4P

460357-21-5P

RL: DEV (Device component use); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

(nonlinear optical material contg. fluoropolymer)

IT 97-52-9, 2-Methoxy-4-nitroaniline 100-01-6, 4-Nitroaniline, reactions

100-15-2, N-Methyl-4-nitroaniline 7473-98-5, 2-Hydroxy-2-

methylpropiophenone 7719-09-7, Thionyl chloride 24647-09-4

127564-92-5, HCFC-225 174082-84-9 174082-85-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(nonlinear optical material contg. fluoropolymer)

IT 460356-88-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(nonlinear optical material contg. fluoropolymer)

IT 174082-93-0P 402831-46-3P 460357-23-7P 475562-78-8P

475562-79-9P 475562-80-2P 475562-81-3P 475562-82-4P

475562-83-5P 475562-84-6P 475562-85-7P

475562-86-8P 475562-87-9P 475562-88-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(nonlinear optical material contg. fluoropolymer)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Asahi Glass Co Ltd; JP 03-9329 A 1991 HCAPLUS
- (2) Asahi Glass Co Ltd; JP 04-255716 A 1992 HCAPLUS
- (3) Asahi Glass Co Ltd; JP 20001511 A 2001
- (4) Asahi Glass Co Ltd; US 6221987 B 2001 HCAPLUS
- (5) Asahi Glass Co Ltd; EP 950672 A 2001 HCAPLUS
- (6) Daikin Industries Ltd; JP 200026540 A 2000
- (7) Nippon Telegraph And Telephone Corp; JP 05-142600 A 1993 HCAPLUS

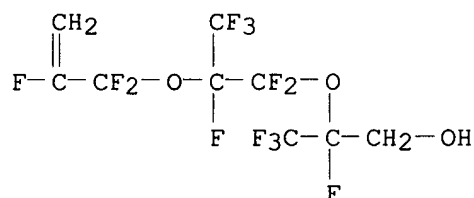
IT 292163-51-0P 460357-20-4P 460357-21-5P
RL: DEV (Device component use); SPN (Synthetic preparation);
PREP (Preparation); USES (Uses)
(nonlinear optical material contg. fluoropolymer)

RN 292163-51-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with
2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

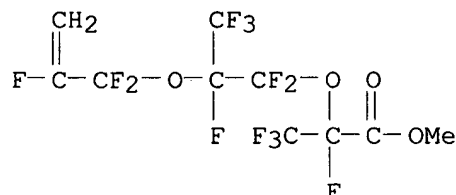
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 174082-83-8
CMF C10 H5 F13 O4

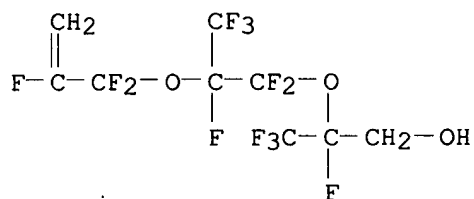


RN 460357-20-4 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

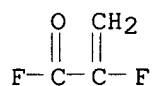
CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 60556-85-6

CMF C3 H2 F2 O



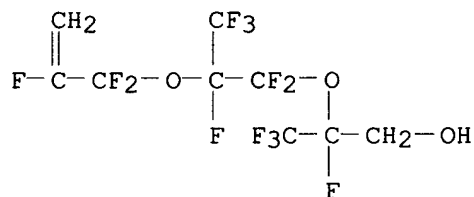
RN 460357-21-5 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 2-fluoro-2-propenoyl fluoride and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI)
(CA INDEX NAME)

CM 1

CRN 174082-85-0

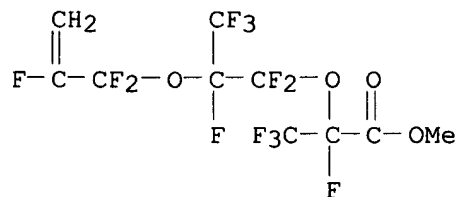
CMF C9 H5 F13 O3



CM 2

CRN 174082-83-8

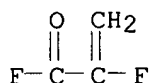
CMF C10 H5 F13 O4



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



IT 174082-93-0P 460357-23-7P 475562-82-4P

475562-83-5P 475562-84-6P 475562-85-7P

475562-87-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(nonlinear optical material contg. fluoropolymer)

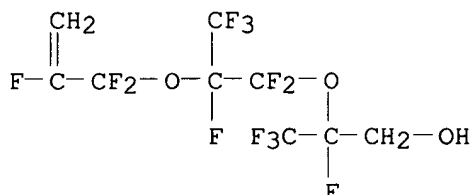
RN 174082-93-0 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
(CA INDEX NAME)

CM 1

CRN 174082-85-0

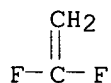
CMF C9 H5 F13 O3



CM 2

CRN 75-38-7

CMF C2 H2 F2



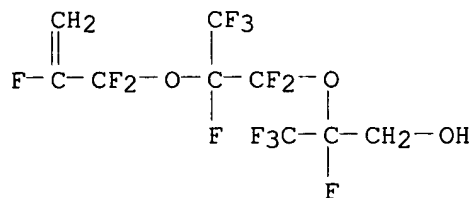
RN 460357-23-7 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 1,1-difluoroethene and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

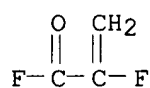
CMF C9 H5 F13 O3



CM 2

CRN 60556-85-6

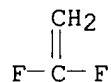
CMF C3 H2 F2 O



CM 3

CRN 75-38-7

CMF C2 H2 F2



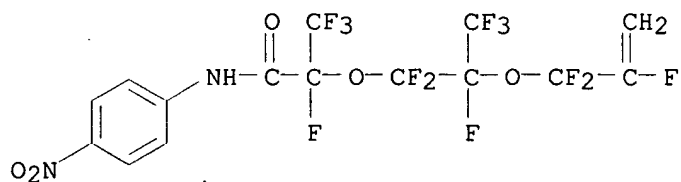
RN 475562-82-4 HCAPLUS

CN Propanamide, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-N-(4-nitrophenyl)-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 475562-78-8

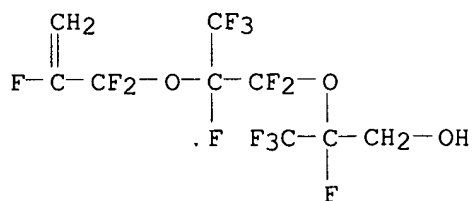
CMF C15 H7 F13 N2 O5



CM 2

CRN 174082-85-0

CMF C9 H5 F13 O3



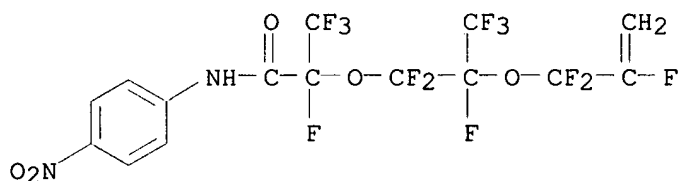
RN 475562-83-5 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-N-(4-nitrophenyl)propanamide and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 475562-78-8

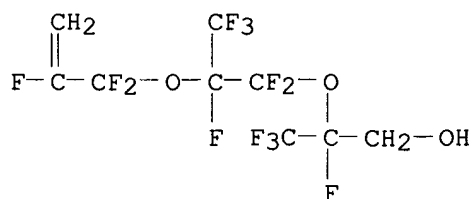
CMF C15 H7 F13 N2 O5



CM 2

CRN 174082-85-0

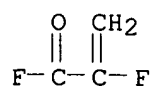
CMF C9 H5 F13 O3



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



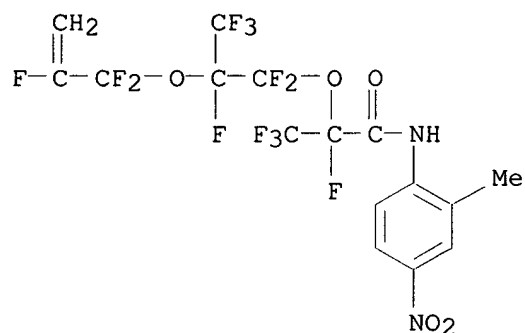
RN 475562-84-6 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-N-(2-methyl-4-nitrophenyl)propanamide (9CI) (CA INDEX NAME)

CM 1

CRN 475562-79-9

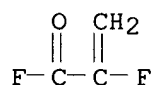
CMF C16 H9 F13 N2 O5



CM 2

CRN 60556-85-6

CMF C3 H2 F2 O



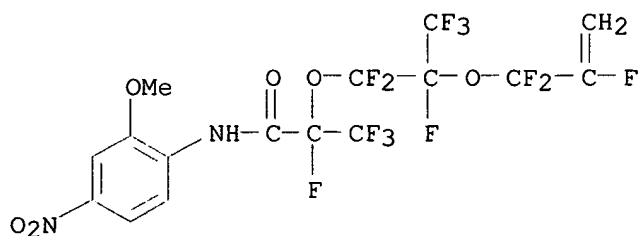
RN 475562-85-7 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-N-(2-methoxy-4-nitrophenyl)propanamide (9CI) (CA INDEX NAME)

CM 1

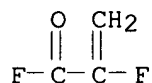
CRN 475562-80-2

CMF C16 H9 F13 N2 O6



CM 2

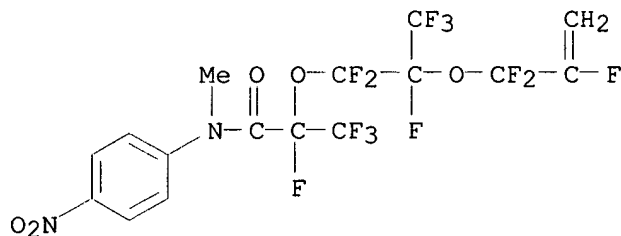
CRN 60556-85-6
CMF C3 H2 F2 O



RN 475562-87-9 HCAPLUS
CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-N-methyl-N-(4-nitrophenyl)propanamide (9CI) (CA INDEX NAME)

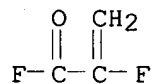
CM 1

CRN 475562-86-8
CMF C16 H9 F13 N2 O5



CM 2

CRN 60556-85-6
CMF C3 H2 F2 O



L43 ANSWER 2 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2002:754496 HCAPLUS
DN 137:280751
TI Water-repellent, antireflective, fouling- and scratch-resistant coating compositions for surface protection of inorganic/organic composites and devices thereof
IN Satoh, Kazuyuki; Sakai, Mihoko; Araki, Takayuki
PA Daikin Industries, Ltd., Japan
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C09K003-00
ICS C09D185-00; C09D133-16; G02B001-10; B32B027-30

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 73, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002077116	A1	20021003	WO 2002-JP2646	20020320
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	JP 2001-80352	A	20010321		
AB	The radiation-curable and transparent compns. comprise: (A) a hydrolyzable metal alkoxide or the hydrolyzate thereof, (B) a perfluoroalkyl compd. having a functional group reactive with A, (C) an adhesion improver, and optionally (D) a polymer having C1-10 perfluoroalkyl pendants with or without groups of amino, carboxyl, isocyanato, OH, and glycidyl. Thus, hydrolytic polymg. 24.4 parts tetraethoxysilane with 7.4 parts heptadecylfluoro-1,1,2,2-tetrahydrodecyltriethoxysilane in H2O/Et-OH mixt. solvent in the presence of 0.05 g nitric acid and 1.2 parts PMMA gave a title compn., which was spin-coated on an untreated PET substrate and cured under high-pressure Hg lamp to give a film sample showing claimed properties.				
ST	perfluoroalkyl compd hydrolyzable alkoxide fouling resistant coating compn; tetraethoxysilane water repellent antireflective transparent coating compn; inorg org composite device antireflective radiation curable coating compn				
IT	Polysiloxanes, uses RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses) (acrylic, fluoroalkyl group-contg.; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)				
IT	Fluoropolymers, uses RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses) (acrylic-polysiloxane-, fluoroalkyl group-contg.; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)				
IT	Coating materials (antisoiling; for surface protection of inorg./org. composites)				
IT	Transparent materials (coatings; for surface protection of inorg./org. composites)				
IT	Antireflective films (for surface protection of inorg./org. composites)				
IT	Fluoropolymers, uses RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses) (in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)				
IT	Composites (inorg./org.; surface protection using coatingperfluoroalkyl-contg. acrylic-siloxane compns.)				
IT	Polysiloxanes, uses RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical				

- process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (polyether-, fluorine-contg.; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (polyether-siloxane-; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)
- IT Coating materials
 (radiation-curable; for surface protection of inorg./org. composites)
- IT Coating materials
 (scratch-resistant; for surface protection of inorg./org. composites)
- IT Polysiloxanes, uses
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (silicate-, fluorine-contg.; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)
- IT Polyethers, uses
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (siloxane-, fluorine-contg.; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)
- IT Acrylic polymers, miscellaneous
 Polycarbonates, miscellaneous
 Polyesters, miscellaneous
 Polyolefins
 RL: MSC (Miscellaneous)
 (substrate; surface protection using coatingperfluoroalkyl-contg. acrylic-siloxane compns.)
- IT Hybrid organic-inorganic materials
 Optical instruments
 (surface protection using coatingperfluoroalkyl-contg. acrylic-siloxane compns.)
- IT Coating materials
 (transparent; for surface protection of inorg./org. composites)
- IT 9011-14-7, PMMA 466693-00-5
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (adhesion improver; in water-repellent, antireflective, fouling- and scratch-resistant coating compns. for surface protection of inorg./org. composites)
- IT 26936-30-1P, .gamma.-Methacryloxypropyltrimethoxysilane-methyl methacrylate copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (adhesion improver; prepns. of perfluoroalkyl compds. for water-repellent, antireflective, fouling- and scratch-resistant coating compns.)
- IT 75-94-5, Vinyltrichlorosilane 110-05-4, Di-tert-butyl peroxide

60556-85-6 126870-64-2 174082-85-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in prepn. of perfluoroalkyl compds. for water-repellent,
 antireflective, fouling- and scratch-resistant coating compns.)

IT 67-56-1DP, Methanol, reaction products with polysiloxanes 330977-29-2P
 466692-98-8DP, reaction product with methanol 466692-99-9DP, reaction
 product with methanol
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
 process); POF (Polymer in formulation); PRP (Properties); PYP (Physical
 process); TEM (Technical or engineered material use); PREP (Preparation);
 PROC (Process); USES (Uses)
 (in water-repellent, antireflective, fouling- and scratch-resistant
 coating compns. for surface protection of inorg./org. composites)

IT 466692-97-7DP, reaction products with methanol
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (monomer; in prepn. of perfluoroalkyl compds. for water-repellent,
 antireflective, fouling- and scratch-resistant coating compns.)

IT 402913-60-4P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (prepn. of perfluoroalkyl compds. for water-repellent, antireflective,
 fouling- and scratch-resistant coating compns.)

IT 9012-09-3, Triacetylcellulose 25038-59-9, Polyethylene terephthalate,
 miscellaneous
 RL: MSC (Miscellaneous)
 (substrate; surface protection using coatingperfluoroalkyl-contg.
 acrylic-siloxane compns.)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Asahi Glass Co Ltd; JP 05279499 A 1992 HCAPLUS
 (2) Asahi Glass Co Ltd; EP 513690 A2 1992 HCAPLUS
 (3) Daikin Industries Ltd; JP 09157388 A 1998 HCAPLUS
 (4) Daikin Industries Ltd; EP 844265 A1 1998 HCAPLUS
 (5) Daikin Industries Ltd; WO 977155 A1 1998
 (6) Dainippon Printing Co Ltd; JP 60156731 A 1985 HCAPLUS
 (7) Fuji Photo Film Co Ltd; JP 11106704 A 2000 HCAPLUS
 (8) Fuji Photo Film Co Ltd; US 6129980 A 2000 HCAPLUS
 (9) Fuji Photo Film Co Ltd; JP 200142102 A 2001
 (10) Nippon Kayaku Co Ltd; JP 10104403 A 1998 HCAPLUS
 (11) Shin-Etsu Chemical Co Ltd; JP 06256756 A 1994 HCAPLUS

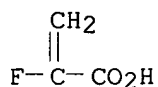
IT 402913-60-4P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (prepn. of perfluoroalkyl compds. for water-repellent, antireflective,
 fouling- and scratch-resistant coating compns.)

RN 402913-60-4 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, homopolymer, 2-fluoro-2-propenoate
 (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9
 CMF C3 H3 F O2

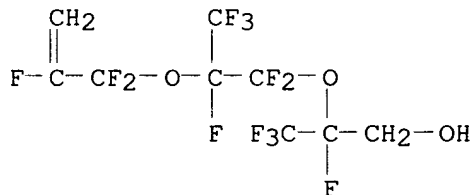


CM 2

CRN 292163-49-6
 CMF (C9 H5 F13 O3)x
 CCI PMS

CM 3

CRN 174082-85-0
 CMF C9 H5 F13 O3



L43 ANSWER 3 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:716633 HCAPLUS

DN 137:255345

TI Photolithographic fine pattern formation method based on resist compositions containing photo-acid generators and fluoropolymers.

IN Naito, Takuya; Ishikawa, Seiichi; Toriumi, Minoru; Miyoshi, Seiro; Yamazaki, Tamio; Watanabe, Manabu; Itani, Toshiro; Araki, Takayuki; Ishikawa, Takuji; Koh, Meiten

PA Semiconductor Leading Edge Technologies, Inc., Japan; Daikin Industries, Ltd.

SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-039

ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002073316	A1	20020919	WO 2002-JP1697	20020226
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-67674 A 20010309

AB Photolithog. fine pattern formation method comprises a step of forming a photosensitive layer on a substrate or on a specified layer on the substrate by using at least a compd. producing an acid on light irradiation and a photosensitive compn. including a fluorine-contg. polymer, a step of

irradiating selectively a specified region in the photosensitive layer with an energy beam, a step of heat-treating the exposed photosensitive layer, and a step of developing the heat-treated photosensitive layer to selectively remove exposed portions or unexposed portions of the photosensitive layer. The photoresist layer shows good transparency to low wavelength light such as F2 excimer laser, good resolving power, and sensitivity, and hence useful for very fine pattern formation.

ST fluoropolymer photoacid generator photoresist lithog patterning

IT Photolithography
(fine pattern formation using fluoropolymer compn. contg. photoacid generators)

IT Photoresists
(photoacid generation type; fluoropolymer compns. contg. photoacid generators as)

IT 66003-78-9, Triphenylsulfonium triflate
RL: TEM (Technical or engineered material use); USES (Uses)
(photoacid generator; photoresist compn. contg. photoacid generators and fluoropolymers)

IT 133938-75-7P, 2-Norbornene-tetrafluoroethylene copolymer 262617-10-7DP, hydrolyzed 262617-10-7P 365568-40-7P 365568-41-8P
460751-56-8P 460751-58-0P 460751-60-4P
RL: PRP (Properties); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)
(synthesis of fluoropolymers for photoacid generator type photoresists)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Asahi Glass Co Ltd; JP 2001296662 A 2001 HCAPLUS
(2) Asahi Glass Co Ltd; JP 2001350263 A 2001 HCAPLUS
(3) Asahi Glass Co Ltd; JP 2001350264 A 2001 HCAPLUS
(4) Asahi Glass Co Ltd; JP 2001350265 A 2001 HCAPLUS
(5) Central Glass Co Ltd; JP 2001330955 A 2001 HCAPLUS
(6) Fuji Photo Film Co Ltd; JP 2000275818 A 2000 HCAPLUS
(7) Sumitomo Chemical Co Ltd; JP 10133375 A 1998 HCAPLUS
(8) Sumitomo Chemical Co Ltd; JP 111466 A 1999
(9) Tokyo Ohka Kogyo Co Ltd; JP 2001328964 A 2001 HCAPLUS

IT 460751-56-8P 460751-58-0P
RL: PRP (Properties); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)
(synthesis of fluoropolymers for photoacid generator type photoresists)

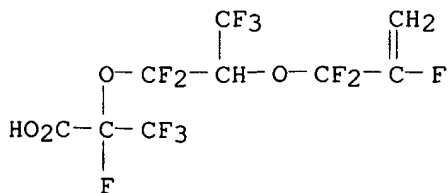
RN 460751-56-8 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,3,3,3-pentafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with bicyclo[2.2.1]hept-2-ene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

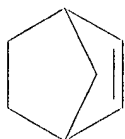
CRN 460751-55-7

CMF C9 H4 F12 O4



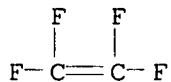
CM 2

CRN 498-66-8
CMF C7 H10



CM 3

CRN 116-14-3
CMF C2 F4

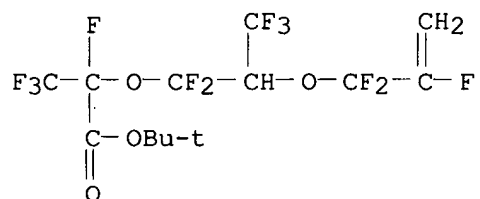


RN 460751-58-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,3,3,3-pentafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, 1,1-dimethylethyl ester, polymer with bicyclo[2.2.1]hept-2-ene and tetrafluoroethene (9CI) (CA INDEX NAME)

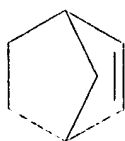
CM 1

CRN 460751-57-9
CMF C13 H12 F12 O4



CM 2

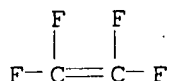
CRN 498-66-8
CMF C7 H10



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 4 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:716383 HCAPLUS

DN 137:255142

TI Optical materials comprising curable fluoropolymers for optical communication

IN Araki, Takayuki; Tanaka, Yoshito; Sakai, Mihoko

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08L101-04

ICS C08K003-00; C08K005-00; G02B006-12; H01S003-16

CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072706	A1	20020919	WO 2002-JP1770	20020227
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-64770 A 20010308

AB Optical materials being transparent at visible and near IR regions contain amorphous fluoropolymers contg. >25% F and having curable parts in the side chains or end groups and ions or compds. of rare earth elements. Thus, a core for an optical amplifier contained 2.00 g .alpha.-fluoroacrylic acid fluoride-perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxananol) copolymer and 0.60 g Eu(OAc)₃.cntdot.4H₂O.

ST optical amplifier fluoropolymer europium acetate; communication optical fluoropolymer rare earth metal

IT Acid halides

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(acid fluorides, polymers; optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT Ethers, uses

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(allyl, fluoro, polymers; optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT Double bond

Optical amplifiers
Optical communication

Optical materials
 Phosphors
 UV radiation
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT Peroxides, uses
 RL: CAT (Catalyst use); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT Polymerization catalysts
 (photochem., radical; optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT Crosslinking catalysts
 (photochem.; optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 119-61-9, Benzophenone, uses 7473-98-5, 2-Hydroxy-2-methylpropiophenone 24650-42-8, 2,2-Dimethoxy-2-phenylacetophenone 31198-38-6, Dipropyl peroxy carbonate 32687-76-6
 RL: CAT (Catalyst use); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 402831-46-3P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 292163-49-6P 292163-51-0P 460357-20-4P 460357-21-5P
 RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 14592-81-5P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 460356-92-7P 460357-23-7P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 460357-22-6P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 460356-91-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 174082-93-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 1184-63-0, Europium triacetate 10025-76-0, Europium chloride 10138-41-7, Erbium trichloride 14284-86-7, Europium trisacetylacetonate

14553-08-3, Erbium trisacetylacetonate

RL: MOA (Modifier or additive use); USES (Uses)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

IT 1522-22-1, Hexafluoroacetylacetone 24647-09-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) New Japan Chemical Co Ltd; JP 200063682 A 2000

(2) Nippon Telegraph And Telephone Corp; JP 588026 A 1993

IT 292163-51-0P 460357-20-4P 460357-21-5P

RL: DEV (Device component use); IMF (Industrial manufacture);

POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

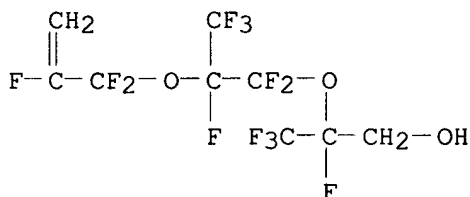
RN 292163-51-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

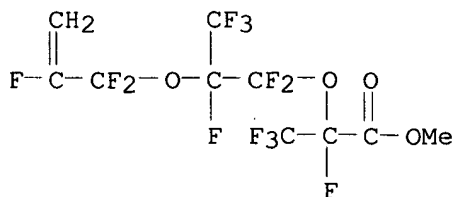
CMF C9 H5 F13 O3



CM 2

CRN 174082-83-8

CMF C10 H5 F13 O4

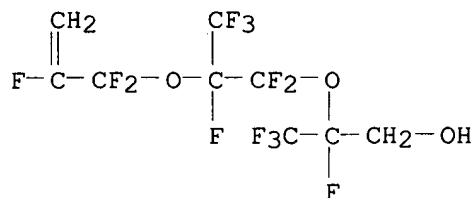


RN 460357-20-4 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

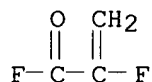
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

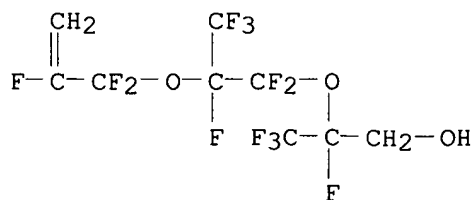
CRN 60556-85-6
CMF C3 H2 F2 O



RN 460357-21-5 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 2-fluoro-2-propenoyl fluoride and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI)
(CA INDEX NAME)

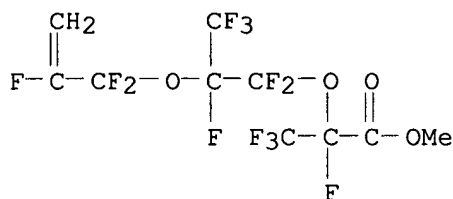
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

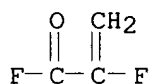
CRN 174082-83-8
CMF C10 H5 F13 O4



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



IT 460356-92-7P 460357-23-7P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

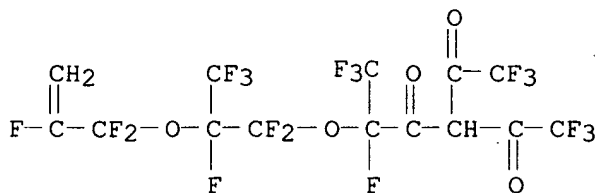
RN 460356-92-7 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 1,1,1,5,6,6,6-heptafluoro-5-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-3-(trifluoroacetyl)-2,4-hexanedione and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 460356-89-2

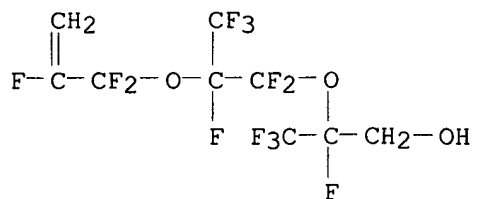
CMF C14 H3 F19 O5



CM 2

CRN 174082-85-0

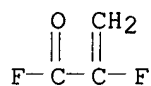
CMF C9 H5 F13 O3



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



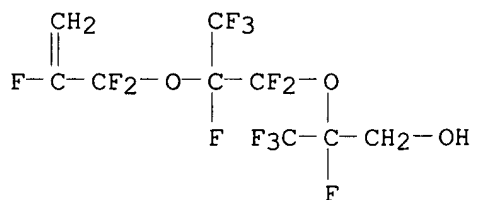
RN 460357-23-7 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 1,1-difluoroethene and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

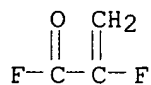
CMF C9 H5 F13 O3



CM 2

CRN 60556-85-6

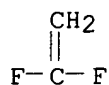
CMF C3 H2 F2 O



CM 3

CRN 75-38-7

CMF C2 H2 F2



IT 460357-22-6P

RL: IMF (Industrial manufacture); PRP (Properties); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)

(optical materials comprising curable fluoropolymers and rare earth
metals for optical communication)

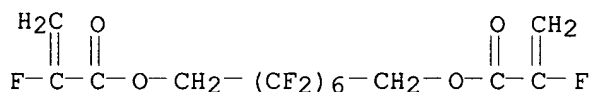
RN 460357-22-6 HCAPLUS

CN 2-Propenoic acid, 2-fluoro-, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-
octanediyl ester, polymer with 2-fluoro-2-propenoyl fluoride and
2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-
propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 443791-00-2

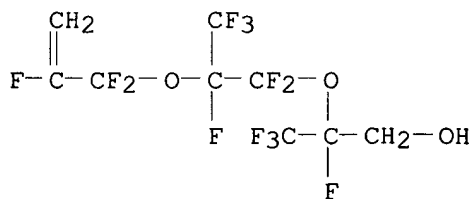
CMF C14 H8 F14 O4



CM 2

CRN 174082-85-0

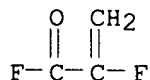
CMF C9 H5 F13 O3



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



IT 460356-91-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

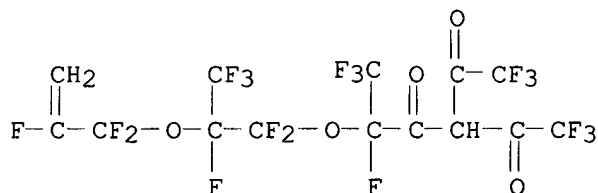
RN 460356-91-6 HCAPLUS

CN 2,4-Hexanedione, 1,1,1,5,6,6,6-heptafluoro-5-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-3-(trifluoroacetyl)-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 460356-89-2

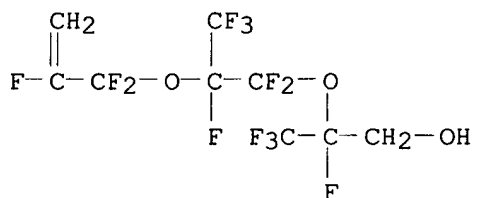
CMF C14 H3 F19 O5



CM 2

CRN 174082-85-0

CMF C9 H5 F13 O3



IT 174082-93-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

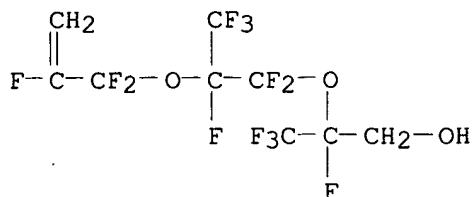
RN 174082-93-0 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

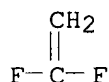
CMF C9 H5 F13 O3



CM 2

CRN 75-38-7

CMF C2 H2 F2



L43 ANSWER 5 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:716376 HCAPLUS

DN 137:255141

TI Optical materials containing functional fluoropolymers for optical communication

IN Araki, Takayuki; Tanaka, Yoshito; Komatsu, Yuzo; Andou, Yoshihito

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08L029-10

ICS C08L033-16; C08F216-14; H01S003-16

CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072696	A1	20020919	WO 2002-JP2057	20020306
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-64771 A 20010308

AB Optical materials contain fluoropolymers and rare earth metal ions, and the fluoropolymers have .gtoreq.1 ketone structure in a side chain and max. value of absorption coeff. .ltoreq.1 cm⁻¹ in the wavelength ranges 1,290 -1,320, 1,530-1,570, and 600-900 nm and the rare earth metal ions are .gtoreq.1 of Er, Tm, Pr, Ho, Nd, and Eu. Thus, a core for an optical amplifier element contained 2.09 g poly(9H,9H-perfluoro-2,5-dimethyl-3,6-dioxa-8-nonanoic acid) and 0.62 g Eu(OAc)₃.cntdot.4H₂O.

ST optical material fluoropolymer rare earth ion; amplifier optical fluoropolymer rare earth ion; europium fluoropolymer optical amplifier

IT Ethers, uses

RL: DEV (Device component use); IMF (Industrial manufacture); POE (Polymer in formulation); PREP (Preparation); USES (Uses)

(allyl, fluoro, polymers; optical materials contg. functional

- fluoropolymers and rare earth ions for optical communication)
- IT Carbonyl group
 - Double bond
 - Optical amplifiers
 - Optical communication
 - Optical materials
 - Phosphors
 - Plastic films
 - UV radiation
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT Peroxides, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT Fluoropolymers, uses
 - RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT Polymerization catalysts
 - (photochem., radical; optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT Crosslinking catalysts
 - (photochem.; optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 7473-98-5, 2-Hydroxy-2-methylpropiophenone 32687-76-6
 - RL: CAT (Catalyst use); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 292163-48-5P 460356-87-0P 460356-90-5P 460356-92-7P
 - RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 460356-88-1P 460356-89-2P
 - RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 460356-91-6P
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 1184-63-0, Europium triacetate 7440-00-8, Neodymium, uses 7440-10-0, Praseodymium, uses 7440-52-0, Erbium, uses 7440-60-0, Holmium, uses 10138-41-7, Erbium trichloride
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)
- IT 1522-22-1, Hexafluoroacetylacetone 7719-09-7, Thionyl chloride 174082-84-9
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (optical materials contg. functional fluoropolymers and rare earth ions for optical communication)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Akzo Nobel Nv; JP 07502731 A 1995
- (2) Akzo Nobel Nv; US 5581398 A 1995 HCAPLUS

- (3) Akzo Nobel Nv; EP 618892 A1 1995 HCAPLUS
 (4) Asahi Glass Co Ltd; JP 2001226313 A 2001 HCAPLUS
 (5) Asahi Kasei Corp; JP 6356610 A 1988
 (6) Koike, Y; EP 1072905 A1 2001 HCAPLUS
 (7) Koike, Y; JP 200191758 A 2001
 (8) Mitsubishi Rayon Co Ltd; JP 03259103 A 1991 HCAPLUS
 (9) Mitsubishi Rayon Co Ltd; EP 438170 A2 1991 HCAPLUS
 (10) Mitsubishi Rayon Co Ltd; US 5111526 A 1991 HCAPLUS

IT 460356-87-0P 460356-92-7P

RL: DEV (Device component use); IMF (Industrial manufacture);

POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(optical materials contg. functional fluoropolymers and rare earth ions for optical communication)

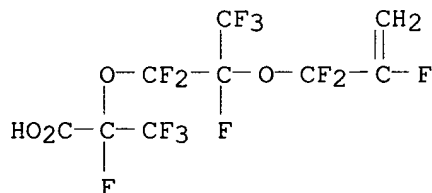
RN 460356-87-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with methyl
 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propanoate (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

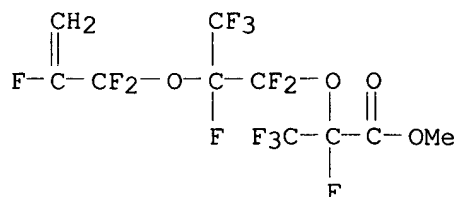
CMF C9 H3 F13 O4



CM 2

CRN 174082-83-8

CMF C10 H5 F13 O4



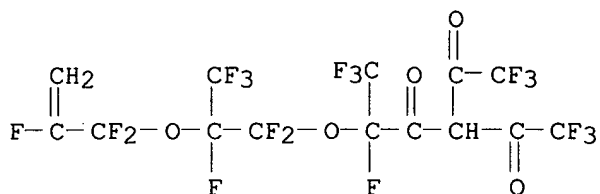
RN 460356-92-7 HCAPLUS

CN 2-Propenoyl fluoride, 2-fluoro-, polymer with 1,1,1,5,6,6,6-heptafluoro-5-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-3-(trifluoroacetyl)-2,4-hexanedione and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 460356-89-2

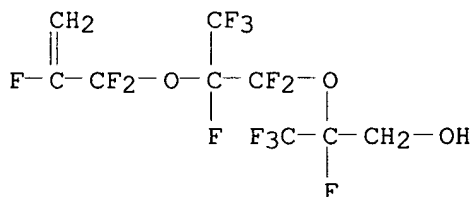
CMF C14 H3 F19 O5



CM 2

CRN 174082-85-0

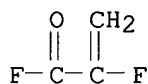
CMF C9 H5 F13 O3



CM 3

CRN 60556-85-6

CMF C3 H2 F2 O



IT 460356-91-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(optical materials contg. functional fluoropolymers and rare earth ions for optical communication)

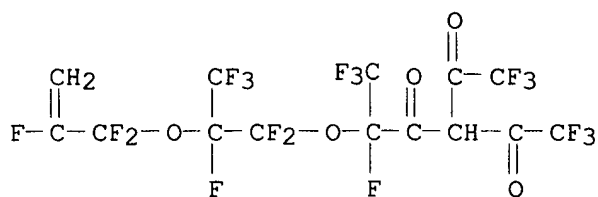
RN 460356-91-6 HCAPLUS

CN 2,4-Hexanedione, 1,1,1,5,6,6,6-heptafluoro-5-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-3-(trifluoroacetyl)-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 460356-89-2

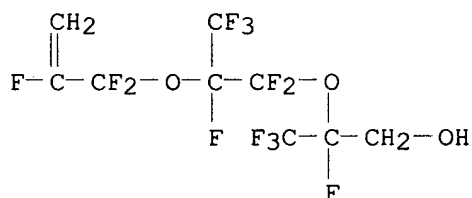
CMF C14 H3 F19 O5



CM 2

CRN 174082-85-0

CMF C9 H5 F13 O3



L43 ANSWER 6 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:514399 HCAPLUS

DN 137:79914

TI Electrically insulating films having low dielectricity and their use as integrated circuit structures

IN Hachisuka, Masaharu; Sakashita, Hirotooshi; Arase, Takuya

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L027-12

ICS C08J005-18; C08K003-00; C08K005-04; H01B003-00; H01B003-44;

H01L021-312; H01L021-768

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002194164	A2	20020710	JP 2000-398125	20001227
PRAI	JP 2000-398125		20001227		

AB The films comprises metal oxide polycondensed compds. and functional group- and F-contg. ethylenic polymers. Thus, 44.8 g aq. dispersion contg. 22.3% 97.3:0.9:1.8 (mol ratio) tetrafluoroethylene-perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol) copolymer was mixed with 87.5 g silica sol soln. [prepd. from Si(OEt)₄ and MeSi(OEt)₃], applied on a silicon wafer, and firing to give a film showing dielec. const. 2.35.

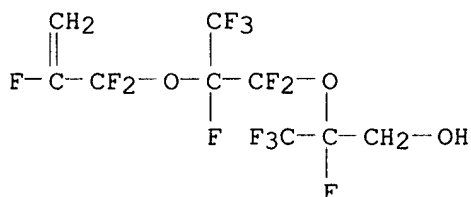
ST elec insulating film low dielectricity; integrated circuit elec insulating film; metal oxide elec insulating film; fluoro ethylenic polymer elec insulating film

IT Dielectric films

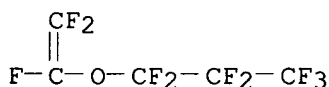
Integrated circuits

(elec. insulating films having low dielectricity and their use as

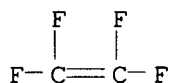
integrated circuit structures)
 IT Silica gel, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (elec. insulating films having low dielectricity and their use as integrated circuit structures)
 IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
 192575-94-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (elec. insulating films having low dielectricity and their use as integrated circuit structures)
 IT 192575-94-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (elec. insulating films having low dielectricity and their use as integrated circuit structures)
 RN 192575-94-3 HCAPLUS
 CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)
 CM 1
 CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2
 CRN 1623-05-8
 CMF C5 F10 O



CM 3
 CRN 116-14-3
 CMF C2 F4



L43 ANSWER 7 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:171969 HCAPLUS

DN 136:233006

TI Radiation-curable fluoropolymer compositions and antireflection films made from them

IN Araki, Takayuki; Sakai, Mihoko; Tanaka, Yoshito; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F008-14

ICS C08F006-12

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018457	A1	20020307	WO 2001-JP7344	20010828
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	JP 2000-259583	A	20000829		
	JP 2000-303723	A	20001003		
	JP 2001-73025	A	20010314		
AB	The compns. contain curable fluoropolymers of -A-M- type [M = CX1X2CRX3 provided that R = (CX4X5)a(C:O)bOCrF; where X1 and X2 each is H or F; X3 is H, F, CH3, or CF3; and X4 and X5 each is H, F, or CF3; Rf is an org. group consisting of a C1-40 fluoroalkyl group or C2-100 fluoroalkyl group having an ether bond and, bonded to the fluoroalkyl group, one to three Y1s (Y1 is a C2-10 monovalent org. group having an ethylenically unsatd. C-C double bond at a terminal); a = 0-3; b, c = 0 or 1; A = a structural unit derived from a monomer copolymerizable with the ethylenic fluoromonomer represented by the formula M] at 0.1-100 mol M and 0-99.9 mol A, and having a no.-av. mol. wt. of 500 to 1,000,000. Thus, mixing 20.4 g perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol) with 21.2 g a 8.0% [H(CF2CF2)3COO]2 perfluorohexane soln. under N at 20.degree. for 24 h gave a polymer (I) having no.-av. mol. wt. (Mn) 9000 and wt.-av. mol. wt. (Mw) 22,000. Dissolving 5.0 g the I with 1.0 g pyridine in 80 mL Et2O, cooling to 5.degree., adding 1.0 g CH2:CFCOF dissolved in 20 mL over 30 min while flushing with N and stirring, warming to room temp., mixing for 4 h and working up gave a modified I which can be cured by UV radiation in the presence of a photoinitiator.				
ST	fluoroacryloyl pendant allyl fluoro ether polymer curable antireflection film; UV radiation curable antireflection film coating acrylic fluoropolymer				
IT	Fluoropolymers, preparation				
	RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(acrylic; curable fluoropolymer compns. and antireflection films made from them)				
IT	Polyesters, properties				

(Uses)

antireflection films made from them)

IT

films made from them)

IT

(curable fluoropolymer compns. and antireflection films made from them)

IT

engineered material use); USES (Uses)

from them)

IT

made from them)

IT

engineered material use); USES (Uses)

antireflection films made from them)

IT

RL: PRP (Properties); TEM (technical or engineered material use); USES (Uses)

(antireflection base film, curable fluoropolymer compns. and antireflection films made from them)

IT

(crosslinker: curable fluoropolymer compns.

made from them)

IT

bistrifluoromethyl-3,6-dioxanonenol) homopolymer .alpha.-fluoroacrylate

bistrifluoromethyl-3,6-dioxanonenol)-vinylidene fluoride copolymer .alpha.-fluoroacrylate ester **402913-64-8P**, Perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol acid methyl ester) copolymer .alpha.-fluoroacrylate ester **402913-65-9P**, Perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol)-tetrafluoroethylene copolymer .alpha.-fluoroacrylate ester **402913-67-1P**, Chlorotrifluoroethylene-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol) copolymer .alpha.-fluoroacrylate ester **402913-68-2P**, 2,3,3,5,6,6,8-Heptafluoro-4,7,10-trioxa-5,8-bis(trifluoromethyl)-12,13-dihydroxytridec-1-ene polymer .alpha.-fluoroacrylate ester

PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(curable fluoropolymer compns. and antireflection films made from them)

IT

RL: IM (Industrial manufacture); RCI (Reactant); PREP (Preparation); RACI (Reactant or reagent)

(curable fluoropolymer compns. and antireflection films made from them)

IT

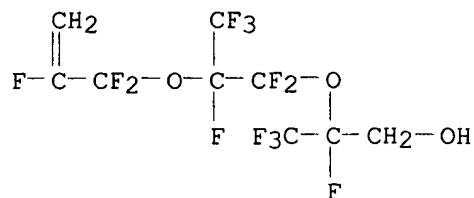
RL: IMF (Industrial manufacture); RCI (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomer; curable fluoropolymer compns. and antireflection films made

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

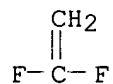
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

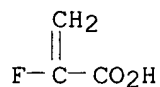
CRN 75-38-7
CMF C2 H2 F2



RN 402913-60-4 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer, 2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9
CMF C3 H3 F O2

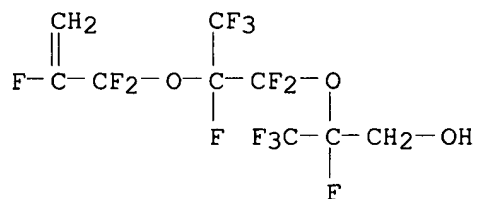


CM 2

CRN 292163-49-6
CMF (C9 H5 F13 O3)x
CCI PMS

CM 3

CRN 174082-85-0
CMF C9 H5 F13 O3



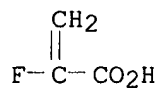
RN 402913-61-5 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9

CMF C3 H3 F O2



CM 2

CRN 174082-93-0

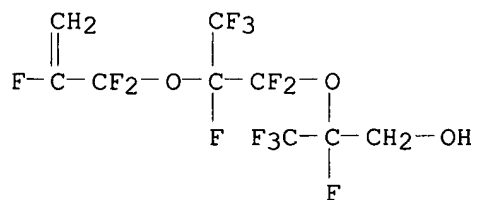
CMF (C9 H5 F13 O3 . C2 H2 F2)x

CCI PMS

CM 3

CRN 174082-85-0

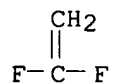
CMF C9 H5 F13 O3



CM 4

CRN 75-38-7

CMF C2 H2 F2



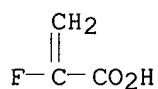
RN 402913-64-8 HCAPLUS

CN Butanoic acid, 3,4,4,4-tetrafluoro-3-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol, 2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9

CMF C3 H3 F O2



CM 2

CRN 402913-63-7

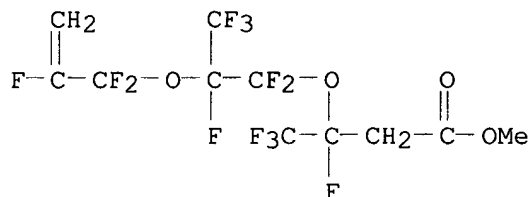
CMF (C11 H7 F13 O4 . C9 H5 F13 O3)x

CCI PMS

CM 3

CRN 402913-62-6

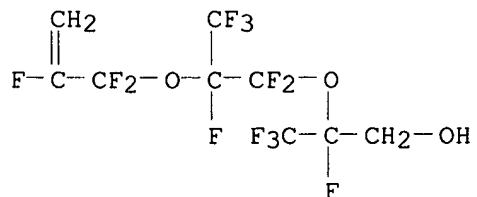
CMF C11 H7 F13 O4



CM 4

CRN 174082-85-0

CMF C9 H5 F13 O3

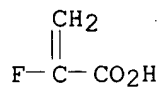


RN 402913-65-9 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene, 2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9
CMF C3 H3 F O2

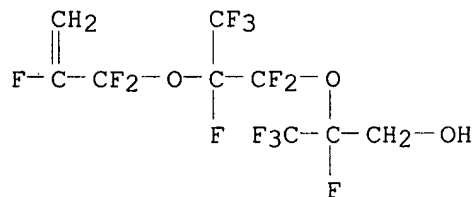


CM 2

CRN 174082-92-9
CMF (C9 H5 F13 O3 . C2 F4) x
CCI PMS

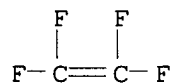
CM 3

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 4

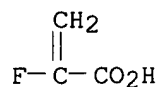
CRN 116-14-3
CMF C2 F4



RN 402913-67-1 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9
CMF C3 H3 F O2

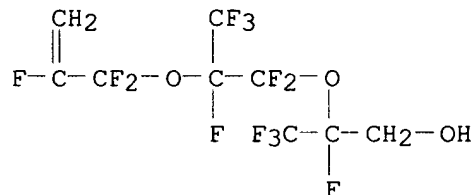


CM 2

CRN 402913-66-0
CMF (C9 H5 F13 O3 . C2 Cl F3)x
CCI PMS

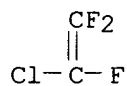
CM 3

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 4

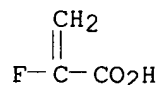
CRN 79-38-9
CMF C2 Cl F3



RN 402913-68-2 HCAPLUS
CN 1,2-Propanediol, 3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-
[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, homopolymer,
2-fluoro-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 430-99-9
CMF C3 H3 F O2



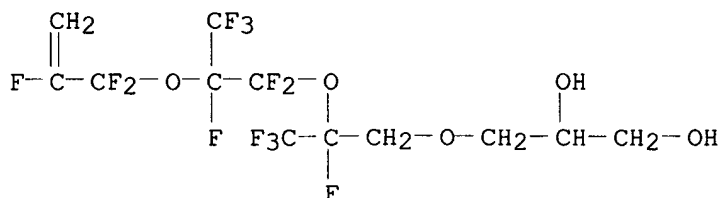
CM 2

CRN 402831-52-1

CMF (C12 H11 F13 O5)x
CCI PMS

CM 3

CRN 402831-50-9
CMF C12 H11 F13 O5



L43 ANSWER 8 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:56878 HCAPLUS

DN 136:103977

TI Heat-resistant nonadhesive multilayer fluoropolymer coatings and coated products

IN Torii, Hiroshi; Araki, Takayuki; Tanaka, Yoshito; Ogita, Koichiro

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

ICS C09D001-00; C09D005-00; C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002019052	A2	20020122	JP 2000-207040	20000707
PRAI	JP 2000-207040		20000707		

AB The coatings comprise (a) primers comprising metal oxide polycondensates and functional group-contg. fluoroethylene polymers and (b) outermost layers comprising functional group-free fluoroethylene polymers. Thus, a glass plate was sprayed with a primer contg. perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-perfluoro(Pr vinyl ether)-tetrafluoroethylene copolymer and (EtO)₄Si-MeSi(OEt)₃ copolymer and further sprayed with Neoflon AD 2CR to give a test piece showing haze 9.7, light transmittance 92.1%, good interlayer adhesion, and resistance to abrasion, soiling, alkali, and heat.

ST fluoropolymer coating primer metal oxide glass; silica fluoropolymer coating primer transparency glass

IT Coating materials
(multilayer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

IT Fluoropolymers, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(outermost layer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(primer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

IT Oxides (inorganic), uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(primer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

IT Silsesquioxanes
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(silicate-, primer; heat-resistant nonadhesive multilayer fluoropolymer
coatings)

IT Silicates, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(silsesquioxane-, primer; heat-resistant nonadhesive multilayer
fluoropolymer coatings)

IT Plate glass
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; heat-resistant nonadhesive multilayer fluoropolymer
coatings)

IT 74-85-1D, Ethylene, polymers with fluoromonomers 116-14-3D,
Tetrafluoroethylene, polymers with perfluoro(alkyl vinyl ether)
9002-83-9, Poly(chlorotrifluoroethylene) 9002-84-0,
Polytetrafluoroethylene 25038-71-5, Ethylene-tetrafluoroethylene
copolymer 25067-11-2, Neoflon ND 1 143067-14-5, Neoflon AD 2CR
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(outermost layer; heat-resistant nonadhesive multilayer fluoropolymer
coatings)

IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-
tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene
copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); **PREP**
(Preparation); USES (Uses)
(primer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

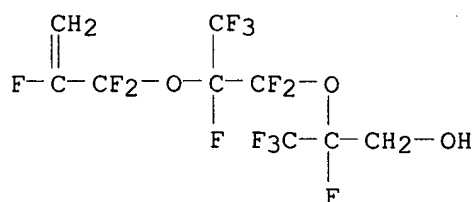
IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-
tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene
copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); **PREP**
(Preparation); USES (Uses)
(primer; heat-resistant nonadhesive multilayer fluoropolymer coatings)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
NAME)

CM 1

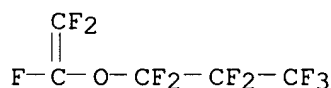
CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

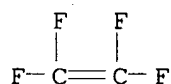
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 9 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:747864 HCAPLUS

DN 135:310923

TI Novel fluoropolymer having acid-reactive group and chemical amplification type photoresist composition containing the same

IN Araki, Takayuki; Koh, Meiten; Tanaka, Yoshito; Ishikawa, Takuji; Aoyama, Hirokazu; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 363 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F020-22

ICS C08F016-24; C08F014-18; C08F030-08; C08F032-00; G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001074916	A1	20011011	WO 2001-JP2897	20010403
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
	HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
	LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI JP 2000-102799 A 20000404
 JP 2000-177494 A 20000613
 JP 2001-61896 A 20010306

AB A novel fluoropolymer having acid-reactive groups which highly transmits energy rays (radiation) in the vacuum UV region (157 nm); and a fluoropolymer base material which contains the fluoropolymer and is suitable for use in a photoresist. The fluoropolymer has a segment represented by the formula -(M1)-(M2)-(A)- (wherein M1 is a structural unit having a functional group which is eliminated or decompd. with an acid; M2 is a structural unit derived from a fluoroacrylate; and A is a structural unit derived from other copolymerizable monomer), comprises 1 to 99 mol the structural unit (M1), 1 to 99 mol the structural unit (M2), and 0 to 98 mol the structural unit (A1), provided that (M1)/(M2) is from 1/99 to 99/1 by mole, and has a no.-av. mol. wt. of 1,000 to 1,000,000. The fluoropolymer base material contains a fluoropolymer having acid-reactive groups, such as the fluoropolymer described above, and is suitable for use in a photoresist.

ST fluoropolymer chem amplification photoresist; acid reactive fluoropolymer photoresist

IT Photoresists
 (fluoropolymers having acid-reactive groups as chem. amplification type)

IT Fluoropolymers, preparation
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (prepn. and use in chem. amplification type photoresists)

IT 75-65-0, tert-Butanol, reactions 107-59-5, tert-Butyl chloroacetate 108-95-2, Phenol, reactions 110-87-2, Dihydropyran 381-98-6, .alpha.-Trifluoromethylacrylic acid 542-92-7, Cyclopentadiene, reactions 771-61-9, Perfluorophenol 13668-61-6, 2-Cyclopenten-1-ylacetic acid 60556-85-6 174082-84-9 174082-85-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(fluoropolymer-forming monomers from reactions of)

IT 28572-02-3P 74883-30-0P 119989-02-5P, Perfluorophenyl .alpha.-fluoroacrylate homopolymer 130139-33-2P **174082-94-1P** 262617-13-0P 342005-62-3P 365568-25-8P, tert-Butyl .alpha.-fluoroacrylate-tert-perfluorobutyl acrylate copolymer 365568-27-0DP, ethoxyethylated 365568-27-0P, Perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol homopolymer 365568-29-2P **365568-31-6P 365568-33-8P 365568-34-9DP**, ethoxyethylated **365568-34-9P 365568-36-1P 365568-37-2P 365568-38-3P 365568-40-7P 365568-41-8P 365568-42-9P 365568-44-1P 365568-45-2P**, cyclopentene-tert-butyl .alpha.-fluoroacrylate-TFE copolymer 365568-46-3P 365568-47-4P 365568-48-5P 365568-49-6P, Allyl alcohol-tert-butyl methacrylate-tetrafluoroethylene copolymer 365568-50-9P 365568-51-0P 365568-52-1P 365568-53-2P 365568-54-3P, 3-tert-Butoxycarbonylcyclopentene-tetrafluoroethylene copolymer 365568-56-5P 365568-57-6P 365568-58-7P, tert-Butyl .alpha.-fluoroacrylate-2,3-dihydrofuran-tetrafluoroethylene copolymer 365568-59-8P, tert-Butyl methacrylate-2,3-dihydrofuran-tetrafluoroethylene copolymer **365568-60-1P 365568-61-2P 365568-62-3P 365568-63-4P 365568-64-5P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. and use in chem. amplification type photoresists)
 IT 46115-40-6P 85345-86-4P 105935-24-8P 114589-63-8P 251350-77-3P
 342005-61-2P 365568-30-5P 365568-32-7P 365568-39-4P 365568-43-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(synthesis and polymn. in prepn. of fluoropolymers for photoresist)
 RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

- (1) Asahi Glass Co Ltd; JP 33238 A 1991
- (2) Central Glass Co Ltd; JP 2001154362 A 2001 HCAPLUS
- (3) Chiyou Lsi Gijutsu Kenkyu Kumiai; JP 5518673 A 1980
- (4) Chiyou Lsi Gijutsu Kenkyu Kumiai; JP 5558211 A 1980
- (5) Daikin Industries Ltd; JP 6443512 A 1989
- (6) E I Du Pont de Nemours And Company; WO 0017712 A1 2000 HCAPLUS
- (7) E I Du Pont de Nemours And Company; WO 0067072 A1 2000 HCAPLUS
- (8) Fuji Photo Film Co Ltd; US 6159655 A HCAPLUS
- (9) Fuji Photo Film Co Ltd; KR 99078077 A
- (10) Fuji Photo Film Co Ltd; JP 11133593 A 1999 HCAPLUS
- (11) Fuji Photo Film Co Ltd; JP 11327147 A 1999 HCAPLUS
- (12) Fuji Photo Film Co Ltd; JP 2000292926 A 2000 HCAPLUS
- (13) Jsr Corporation; EP 789278 A2 HCAPLUS
- (14) Jsr Corporation; KR 97062810 A
- (15) Jsr Corporation; JP 10111569 A 1998 HCAPLUS
- (16) Matsushita Electric Ind Co Ltd; EP 1035441 A1 HCAPLUS
- (17) Matsushita Electric Ind Co Ltd; JP 2000321774 A 2000 HCAPLUS
- (18) Mitsubishi Rayon Co Ltd; JP 200122076 A 2001
- (19) Nec Corporation; US 6106998 A HCAPLUS
- (20) Nec Corporation; KR 99044758 A
- (21) Nec Corporation; JP 11174677 A 1999 HCAPLUS
- (22) Nippon Zeon Co Ltd; JP 10158337 A 1998 HCAPLUS
- (23) Shin-Etsu Chemical Co Ltd; JP 2001133979 A 2001 HCAPLUS
- (24) Toray Industries Inc; JP 2000298345 A 2000 HCAPLUS
- (25) Toshiba Corporation; KR 98064842 A
- (26) Toshiba Corporation; JP 1184663 A 1999
- (27) Wako Pure Chemical Industries Ltd; US 6143472 A HCAPLUS
- (28) Wako Pure Chemical Industries Ltd; JP 11242337 A 1999 HCAPLUS

IT 174082-94-1P 365568-31-6P 365568-33-8P
 365568-34-9DP, ethoxyethylated 365568-34-9P
 365568-36-1P 365568-37-2P 365568-42-9P
 365568-44-1P 365568-60-1P 365568-61-2P
 365568-62-3P 365568-63-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. and use in chem. amplification type photoresists)

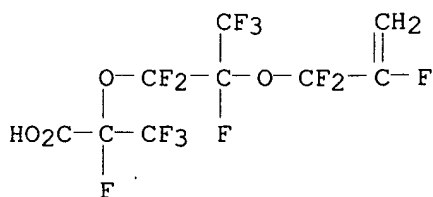
RN 174082-94-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
 (CA INDEX NAME)

CM 1

CRN 174082-84-9

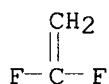
CMF C9 H3 F13 O4



CM 2

CRN 75-38-7

CMF C2 H2 F2



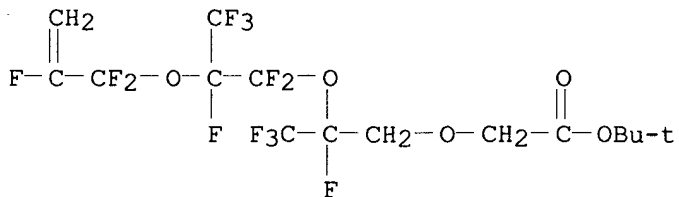
RN 365568-31-6 HCAPLUS

CN Acetic acid, [2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, 1,1-dimethylethyl ester, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 365568-30-5

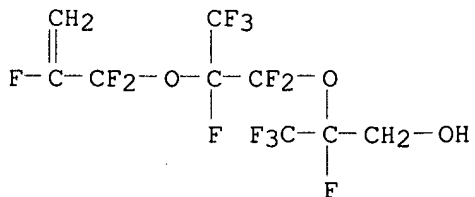
CMF C15 H15 F13 O5



CM 2

CRN 174082-85-0

CMF C9 H5 F13 O3



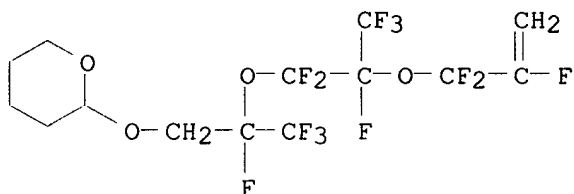
RN 365568-33-8 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrahydro-2-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-2H-pyran (9CI) (CA INDEX NAME)

CM 1

CRN 365568-32-7

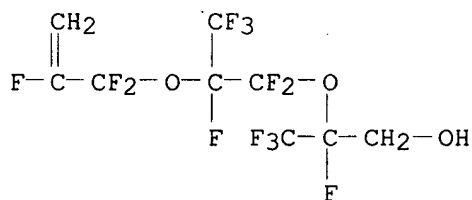
CMF C14 H13 F13 O4



CM 2

CRN 174082-85-0

CMF C9 H5 F13 O3



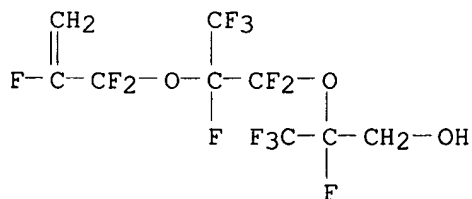
RN 365568-34-9 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 2,3,3-trifluoro-3-[(trifluoroethenyl)oxy]-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

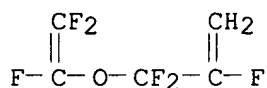
CMF C9 H5 F13 O3



CM 2

CRN 149968-55-8

CMF C5 H2 F6 O



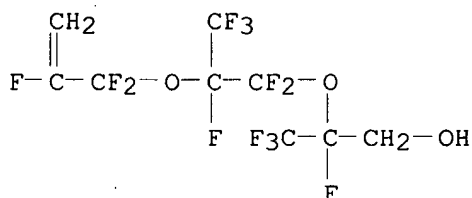
RN 365568-34-9 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 2,3,3-trifluoro-3-[(trifluoroethenyl)oxy]-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

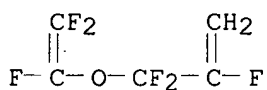
CMF C9 H5 F13 O3



CM 2

CRN 149968-55-8

CMF C5 H2 F6 O



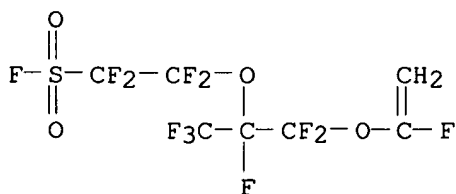
RN 365568-36-1 HCAPLUS

CN Ethanesulfonyl fluoride, 2-[1-[difluoro[(1-fluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

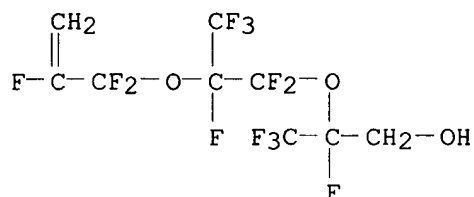
CRN 365568-35-0

CMF C7 H2 F12 O4 S



CM 2

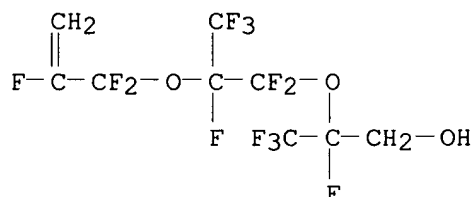
CRN 174082-85-0
CMF C9 H5 F13 O3



RN 365568-37-2 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

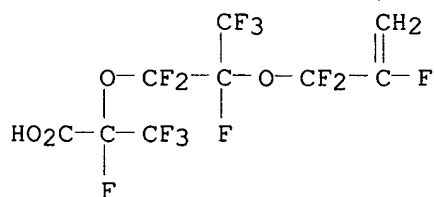
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 174082-84-9
CMF C9 H3 F13 O4

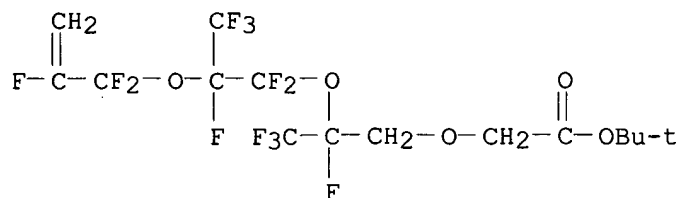


RN 365568-42-9 HCAPLUS
CN Acetic acid, [2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, 1,1-dimethylethyl ester, polymer with bicyclo[2.2.1]hept-2-ene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-30-5

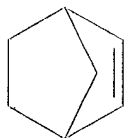
CMF C15 H15 F13 O5



CM 2

CRN 498-66-8

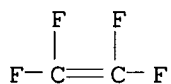
CMF C7 H10



CM 3

CRN 116-14-3

CMF C2 F4



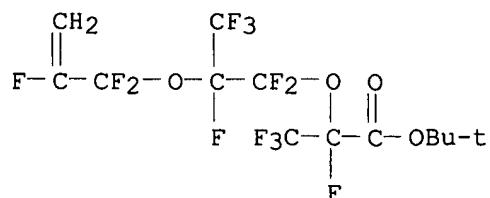
RN 365568-44-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, 1,1-dimethylethyl ester, polymer with bicyclo[2.2.1]hept-2-ene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-43-0

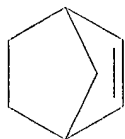
CMF C13 H11 F13 O4



CM 2

CRN 498-66-8

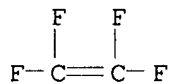
CMF C7 H10



CM 3

CRN 116-14-3

CMF C2 F4



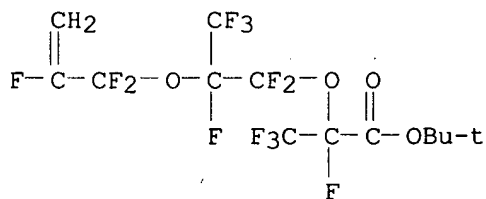
RN 365568-60-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, 1,1-dimethylethyl ester, polymer with cyclopentene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-43-0

CMF C13 H11 F13 O4



CM 2

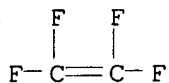
CRN 142-29-0

CMF C5 H8



CM 3

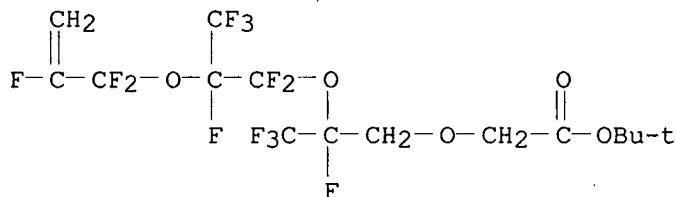
CRN 116-14-3
CMF C2 F4



RN 365568-61-2 HCAPLUS
CN Acetic acid, [2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, 1,1-dimethylethyl ester, polymer with cyclopentene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-30-5
CMF C15 H15 F13 O5



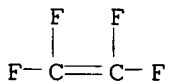
CM 2

CRN 142-29-0
CMF C5 H8



CM 3

CRN 116-14-3
CMF C2 F4

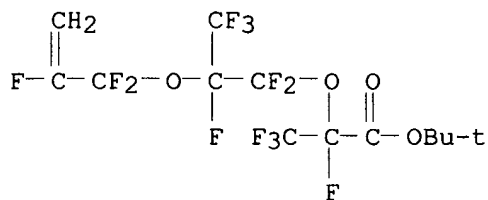


RN 365568-62-3 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, 1,1-dimethylethyl ester, polymer with 2,3-dihydrofuran and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-43-0

CMF C13 H11 F13 O4



CM 2

CRN 1191-99-7

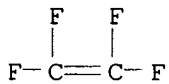
CMF C4 H6 O



CM 3

CRN 116-14-3

CMF C2 F4



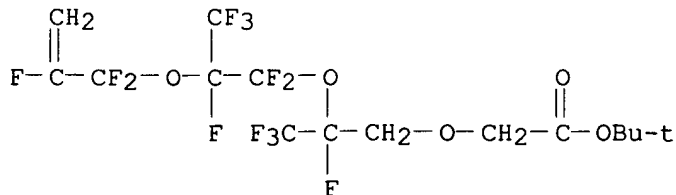
RN 365568-63-4 HCAPLUS

CN Acetic acid, [2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, 1,1-dimethylethyl ester, polymer with 2,3-dihydrofuran and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 365568-30-5

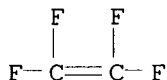
CMF C15 H15 F13 O5



CM 2

CRN 1191-99-7
CMF C4 H6 O

CM 3

CRN 116-14-3
CMF C2 F4

L43 ANSWER 10 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:56980 HCAPLUS

DN 134:117208

TI Room-temperature-curable aqueous coating compositions having
photocatalytic activity

IN Utagawa, Reiko

PA Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D127-00

ICS C09D005-00; C09D007-12; C09D127-16; C09D129-10

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001019894	A2	20010123	JP 1999-224402	19990702
PRAI	JP 1999-224402		19990702		
OS	MARPAT 134:117208				

AB The compns. contain halogen-contg. polymer dispersions, crosslinking agents HS(CF₂)_nSH (n = 2-20) or p-HSC₆H₄CR₂C₆H₄SH-p (R = CF₃, C₂F₅, C₃F₇), aliph. primary diamines as crosslinking catalysts, TiO₂-activated C composite, Fe oxide, and alk. substances. The compns. are useful for exterior or interior coatings for constructions. Thus, a dispersion of 100 parts vinylidene fluoride-chlorotrifluoroethylene-cyclohexyl vinyl ether-CH₂:CFCF₂OCF(CF₃)CF₂OCF(CF₃)CO₂H copolymer was mixed with thiobisphenol AF 10, ethylenediamine 5, TiO₂-activated C composite 50, Fe₂O₃ 10, MgO 10 parts, and other additives to give a coating showing good decompn. of NO_x, MeCHO, and NH₃.

ST photocatalytic coating fluoropolymer dithiol crosslinking agent; titania activated carbon photocatalyst coating fluoropolymer; iron oxide photocatalyst fluoropolymer coating construction; diamine crosslinking catalyst fluoropolymer photocatalyst coating

IT Crosslinking agents

(F-contg. dithiols; room-temp.-curable aq. fluoropolymer coatings)

- having photocatalytic activity)
- IT Amines, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (diamines, crosslinking catalyst; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT Crosslinking catalysts
 - (diamines; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT Bases, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (photocatalyst components; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT Coating materials
 - Photolysis catalysts
 - (room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT Fluoropolymers, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT Buildings
 - (room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity for)
- IT 13463-67-7, Titanium oxide, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (activated carbon composites, photocatalyst; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 7440-44-0, Activated carbon, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (activated, TiO₂ composites, photocatalyst; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 93129-79-4P 320572-60-9P
 - RL: IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 - (crosslinking agent; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 107-15-3, Ethylenediamine, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (crosslinking catalyst; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 1309-37-1, Iron oxide (Fe₂O₃), uses 1309-48-4, Magnesium oxide, uses
 - RL: CAT (Catalyst use); USES (Uses)
 - (photocatalyst component; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 108-98-5, Thiophenol, reactions 375-80-4, Dodecafluoro-1,6-diiodohexane 684-16-2, Hexafluoroacetone
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (reactant for dithiol hardener; room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 320572-61-0P
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)
- IT 320572-61-0P
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(room-temp.-curable aq. fluoropolymer coatings having photocatalytic activity)

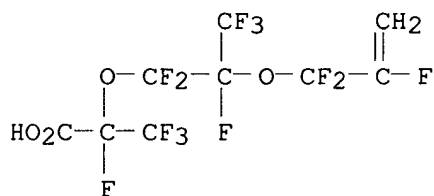
RN 320572-61-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 1,1-difluoroethene, (ethenyloxy)cyclohexane and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzenethiol] (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

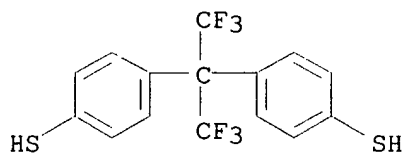
CMF C9 H3 F13 O4



CM 2

CRN 93129-79-4

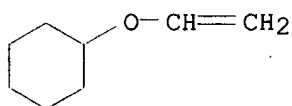
CMF C15 H10 F6 S2



CM 3

CRN 2182-55-0

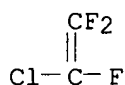
CMF C8 H14 O



CM 4

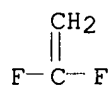
CRN 79-38-9

CMF C2 Cl F3



CM 5

CRN 75-38-7
CMF C2 H2 F2



L43 ANSWER 11 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2000:833138 HCAPLUS
DN 134:5998
TI Coated articles with long-lasting anticorrosive and antisoiling properties
IN Araki, Takayuki; Torii, Hiroshi; Tanaka, Yoshito
PA Daikin Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B32B015-08
ICS B32B015-08; B32B027-00; B32B027-30; B32B027-34
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000326441	A2	20001128	JP 1999-139149	19990519
PRAI	JP 1999-139149		19990519		

AB The article consist of a metal substrate, a primer layer of a heat-resistant condensation polymer having m.p. or Tg .gtoreq.150.degree. and/or 1% wt. loss temp. .gtoreq.250.degree. contg. .gtoreq.1 groups or linkages selected from imide, OH, carboxyl, amide, ester, sulfonic acid, sulfone, carbonate, thiol, and thiolate, and a coating layer of a F-contg. heat-resistant polymer having m.p. or Tg .gtoreq.200.degree. and/or 1% wt. loss temp. .gtoreq.300.degree. contg. .gtoreq.1 functional groups selected from OH, carboxyl, carboxylate salt, carboxy ester, carboxylic acid halide, amide, cyano, sulfonic acid, sulfonic acid ester, sulfonic acid halide, and epoxy. The metallic appearance can be seen through the primer and coating layers due to their high transparency. Thus, a SUS 430 sheet was degreased, primed with a polyimide varnish (PAA-A), dried, sprayed with an aq. dispersion contg. perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxa-8-nonenol]-perfluoro(Pr vinyl ether)-tetrafluoroethylene copolymer (m.p. 318.degree., 1% wt. loss temp. 379.degree.), and baked to give a test piece showing excellent adhesion and soiling and corrosion resistance.

ST steel coating polyimide hydroxy fluoropolymer adhesion

IT Coating materials

(anticorrosive; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

IT Coating materials

- (antisoiling; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (carboxy-contg.; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Coating materials
 Primers (paints)
 (heat-resistant; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (hydroxy-contg.; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polyimides, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyamide-, primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polysulfones, uses
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyether-, primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polyimides, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyether-, primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polyamides, uses
 Polyethers, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyimide-, primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polyethers, uses
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polysulfone-, primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Polyimides, uses
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (primers; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT Coating materials
 (transparent; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)
- IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxa-8-nonenol]-tetrafluoroethylene copolymer **259220-90-1P**, Perfluoro[9,9-dihydro-2,5-bis(trifluoromethyl)-3,6-dioxa-8-nonenol]-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

IT 11109-52-7, SUS 430
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

IT 7429-90-5, Aluminum, uses 7440-32-6, Titanium, uses 7440-50-8, Copper, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

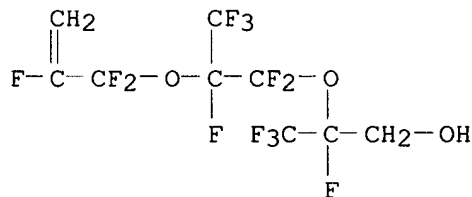
IT 25667-42-9, PES 5003P 180721-36-2, PAA-A
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (primer; coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-tetrafluoroethylene copolymer 259220-90-1P, Perfluoro[9,9-dihydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coated metals with metallic appearance and long-lasting anticorrosive and antisoiling properties)

RN 192575-94-3 HCAPLUS
 CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

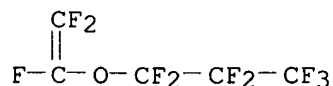
CM 1

CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8
 CMF C5 F10 O



CM 3

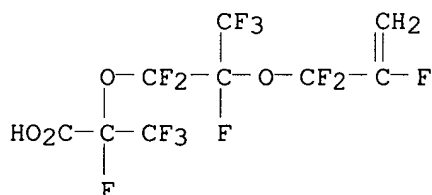
CRN 116-14-3
CMF C2 F4



RN 259220-90-1 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene (9CI)
(CA INDEX NAME)

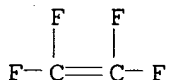
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



CM 2

CRN 116-14-3
CMF C2 F4



L43 ANSWER 12 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2000:646052 HCAPLUS
DN 133:223204
TI Fluorinated allyl ether polymer
IN Morita, Shigeru; Sakashita, Hirotoshi; Araki, Takayuki; Shimizu, Tetsuo
PA Daikin Industries, Ltd., Japan
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C08F016-12
ICS C08F290-06; C08F299-02
CC 35-4 (Chemistry of Synthetic High Polymers)
FAN.CNT 1

applicant

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000053647	A1	20000914	WO 2000-JP1453	20000310

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE

EP 1167397 A1 20020102 EP 2000-907985 20000310

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI

PRAI JP 1999-64577 A 19990311

WO 2000-JP1453 W 20000310

AB A fluorinated allyl ether polymer which consists only of chains made up of at least one kind of structural units represented by general formula [CH₂CF(CF₂OA)] (wherein A represents a C1-100 org. group) and has a no.-av. mol. wt. of 1,000 to 1,000,000. Thus CH₂:CFCF₂OCF(CF₃)CF₂OCF(CF₃)CO₂CH₃ 5 g was polymd. under radical polymn. conditions using [H(CF₂CF₂)₃CO₂]-2 as initiator to give 4.67 g of a colorless transparent polymer with no.-av. mol. wt. 68000, Tg -2.degree., and refractive index 1.3132.

ST allyl ether fluorinated polymn

IT Fluoropolymers, preparation

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(fluorinated allyl ether polymer)

IT 60556-85-6DP, reaction products with hydroxy-contg. polymers

292160-36-2P 292163-47-4P 292163-48-5P 292163-49-6P 292163-50-9P

292163-51-ODP, reaction products 292163-51-ODP, reaction products

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(fluorinated allyl ether polymer)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Daikin Industries Ltd; CN 1129454 A HCAPLUS

(2) Daikin Industries Ltd; US 5670593 A HCAPLUS

(3) Daikin Industries Ltd; EP 728776 A HCAPLUS

(4) Daikin Industries Ltd; AU 9525764 A HCAPLUS

(5) Daikin Industries Ltd; WO 9533782 A1 1995 HCAPLUS

(6) Daikin Industries Ltd; JP 10237130 A 1998 HCAPLUS

(7) Daikin Industries Ltd; JP 10329281 A 1998 HCAPLUS

(8) Daikin Industries Ltd; JP 10329282 A 1998 HCAPLUS

IT 292163-51-ODP, reaction products

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(fluorinated allyl ether polymer)

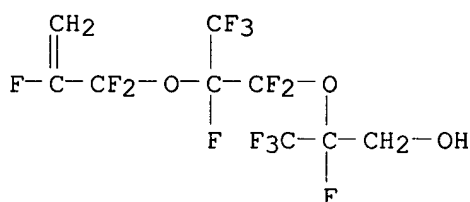
RN 292163-51-0 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

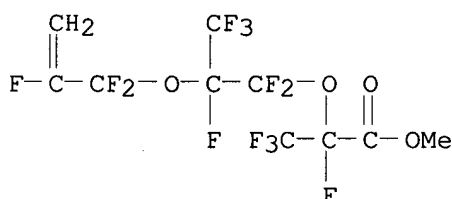
CMF C9 H5 F13 O3



CM 2

CRN 174082-83-8

CMF C10 H5 F13 O4



L43 ANSWER 13 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:351450 HCAPLUS

DN 132:348694

TI Fluorine-containing polymer structure having high-temperature adhesiveness and sliding parts using it

IN Araki, Takayuki; Miyamori, Tsuyoshi; Komori, Masaji; Tanaka, Yoshito; Kumegawa, Masahiro

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B32B027-30

ICS F16C033-20

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000029210	A1	20000525	WO 1999-JP6377	19991116
	W: JP, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI JP 1998-328591 A 19981118

AB The structure such as bearings, rollers, etc. (no data), comprises (A) a layer consisting of a F-contg. polymer alone, and (B) a base material to which the A bonds directly without the needs for a binder at a shear adhesive bonding strength at 150.degree. of at least 0.98 N/mm². The F-contg. polymer preferably bears groups which have good affinity to the B. Thus, polymg. perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol) with perfluoro(Pr vinyl ether) and tetrafluoroethylene gave a copolymer with melt flow rate (under 7 kg/cm² load) of 32 g/10 min, which was pelletized and extrusion molded at 360-380.degree. to give a film with thickness 100-110 .mu.m, and tensile strength 33.0, 21.5 and 9.6

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- MPa at 25, 100 and 200.degree., resp. Pressing the film between 2 layers of sand-blasted carbon steel S45C at 350.degree. and 2.45 MPa gave a laminate with good adhesion even at 200.degree..
- ST heat resistance adhesion strength fluoropolymer steel laminate; sliding part fluoropolymer laminated material
- IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Polyflon TFE-MG 2030, graphite-filled, laminate substrate; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (arom.; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Laminated materials
 (fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Fluoropolymers, uses
 Laminated plastics, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Polythiophenylenes
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminate substrate; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Phenolic resins, uses
 Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminated substrate; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT Carbon fibers, uses
 Glass fibers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (reinforcement; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT 9002-84-0, PTFE
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Polyflon TFE-MG 2030, graphite-filled, laminate substrate; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT 7429-90-5, Aluminum, uses 11109-50-5, SUS 304 11109-52-7, SUS 430 25036-53-7, Kapton 200H 25038-82-8, p-Phenylenediamine-pyromellitic dianhydride copolymer 37268-90-9, uses 150825-75-5, Neoflon PFA-AP 201 212771-28-3, Neoflon PFA-AF 0100
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (laminate substrate; fluorine-contg. polymer structure having high-temp. adhesiveness and sliding parts using it)
- IT 26655-00-5, Perfluoro(propyl vinyl ether)-tetrafluoroethylene copolymer 31694-16-3, Sumilit FS 1100C 111483-44-4, Apical 50AH 116844-77-0,

Sumilit FS 5300 130124-16-2, Polyflon MG 1431
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminate substrate; fluorine-contg. polymer structure having
 high-temp. adhesiveness and sliding parts using it)

IT 1317-33-5, Molybdenum disulfide, uses 7782-42-5, Graphite, uses
 12597-70-5, Bronze
 RL: MOA (Modifier or additive use); USES (Uses)
 (reinforcement; fluorine-contg. polymer structure having high-temp.
 adhesiveness and sliding parts using it)

IT 12005-61-7, Alborex
 RL: MOA (Modifier or additive use); USES (Uses)
 (whiskers, reinforcement; fluorine-contg. polymer structure having
 high-temp. adhesiveness and sliding parts using it)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Daikin Ind Ltd; JP 09157578 A HCAPLUS
 (2) Daikin Ind Ltd; JP 09157578 A HCAPLUS
 (3) Daikin Ind Ltd; JP 09157616 A HCAPLUS
 (4) Daikin Ind Ltd; JP 09157616 A HCAPLUS
 (5) Daikin Ind Ltd; EP 866107 A 1998 HCAPLUS
 (6) Daikin Ind Ltd; EP 866107 A 1998 HCAPLUS
 (7) Daikin Ind Ltd; EP 866108 A 1998 HCAPLUS
 (8) Daikin Ind Ltd; EP 866108 A 1998 HCAPLUS
 (9) Daikin Industries Ltd; JP 10278193 A 1998 HCAPLUS
 (10) Daikin Industries Ltd; WO 9850229 A 1998 HCAPLUS

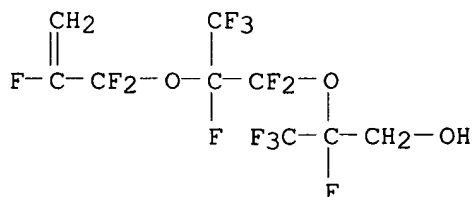
IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-
 tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene
 copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (fluorine-contg. polymer structure having high-temp. adhesiveness and
 sliding parts using it)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
 3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
 NAME)

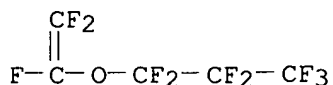
CM 1

CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2

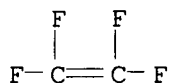
CRN 1623-05-8
 CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 14 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:144960 HCAPLUS

DN 132:195922

TI Nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for their manufacture

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011093	A1	20000302	WO 1999-JP4472	19990820
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1162244	A1	20011212	EP 1999-938539	19990820
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 1998-237749	A	19980824		
	WO 1999-JP4472	W	19990820		

AB The films, when bonded to a substrate at a thickness <3 .mu.m, do not impair the substrate's optical properties, e.g., reflectivity and light transmission, are obtained from a compn. contg. fluoropolymers having hydrophilic functional groups and a cryst. m.p. of .gtoreq.200.degree. for improving film adhesion strength to metal surfaces. Thus, a polymer of perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol), tetrafluoroethylene and perfluoro(Pr vinyl ether) was prep'd. in an aq. dispersion with solids content 21.7%. Dipping an Al plate in the dispersion at a pulling rate 10 mm/min, followed by drying and baking at 380.degree. for 15 min gave a coated substrate with transparent coat film thickness 0.082 .mu.m, IR ray transmission rate >98%, and water contact angles 112.degree., 105.degree., 120.degree. and 104.degree. initially, after a wearing test, after a heat resistance test and after a wet-heat resistance test, resp.

ST nonstick heat resistance coating hydrophilic fluoropolymer; perfluoro olefin polymer coating heat resistance

IT Coating materials
(antisoiling; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Coating materials
(heat-resistant; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Coating materials
(nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Coating materials
(nonstick; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Polyimides, miscellaneous
RL: MSC (Miscellaneous)
(substrate films; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT Glass, miscellaneous
RL: MSC (Miscellaneous)
(substrate; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer 259220-90-1P, Perfluoro(9,9-dihydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenoic acid)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

IT 7429-90-5, Aluminum, miscellaneous 11109-52-7, SUS 430 60676-86-0, Quartz glass 128511-05-7, SUS 430BA
RL: MSC (Miscellaneous)
(substrate; nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Daikin Industries Limited; JP 63-54490 A 1988 HCAPLUS

(2) Daikin Industries Limited; JP 07-48774 A1 1997

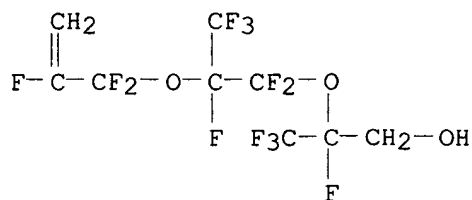
IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer 259220-90-1P, Perfluoro(9,9-dihydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenoic acid)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(nonstick and heat- and soiling-resistant thin coating films made from fluoropolymers and method for manuf.)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

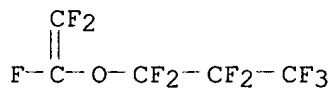
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



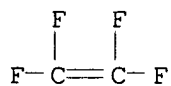
CM 2

CRN 1623-05-8
CMF C5 F10 O



CM 3

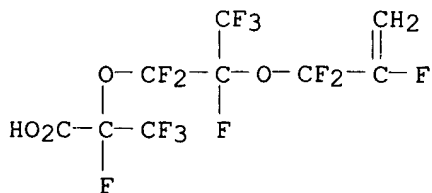
CRN 116-14-3
CMF C2 F4



RN 259220-90-1 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene (9CI)
(CA INDEX NAME)

CM 1

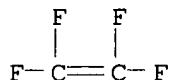
CRN 174082-84-9
CMF C9 H3 F13 O4



CM 2

CRN 116-14-3

CMF C2 F4



L43 ANSWER 15 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:137136 HCAPLUS

DN 132:181694

TI Structures having fluoropolymer transparent layers and heat ray-reflecting sheets using them

IN Araki, Takayuki; Tanaka, Yoshito; Kumekawa, Masahiro

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

ICS B32B015-08; F24C015-22

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000062105	A2	20000229	JP 1998-237642	19980824
PRAI	JP 1998-237642		19980824		
AB	Title structures comprise substrates directly bonded with fluoropolymer layers showing IR transmittance .gtoreq.85%, contact angle for H2O .gtoreq.95.degree., 1%-wt. decrease temp. .gtoreq.300.degree., and crystal m.p. .gtoreq.250.degree.. Thus, a laminate of an A 1050P sheet and a perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer film showed good abrasion and heat resistance.				
ST	fluoropolymer transparent laminate heat ray reflector; IR transmittance fluoropolymer laminate heat shield; abrasion resistance fluoropolymer laminate heat shield; water resistance fluoropolymer laminate heat shield				
IT	Optical reflectors				
	(IR; structures having fluoropolymer transparent layers for heat ray-reflecting sheets)				
IT	IR materials				
	IR materials				
	(optical reflectors; structures having fluoropolymer transparent layers for heat ray-reflecting sheets)				
IT	Abrasion-resistant materials				
	Chemically resistant materials				
	Heat shields				
	Heat-resistant materials				
	Transparent materials				
	Water-resistant materials				
	(structures having fluoropolymer transparent layers for heat ray-reflecting sheets)				
IT	Fluoropolymers, uses				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				

(structures having fluoropolymer transparent layers for heat ray-reflecting sheets)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer 259220-90-1P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(structures having fluoropolymer transparent layers for heat ray-reflecting sheets)

IT 11109-52-7, SUS 430 37321-70-3, A 1050P

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(structures having fluoropolymer transparent layers for heat ray-reflecting sheets)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer 259220-90-1P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(structures having fluoropolymer transparent layers for heat ray-reflecting sheets)

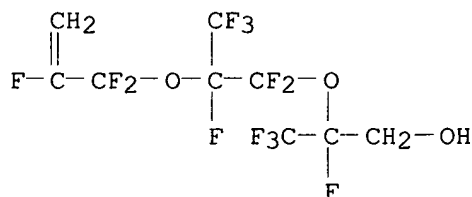
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

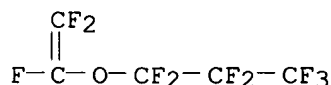
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

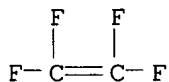
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



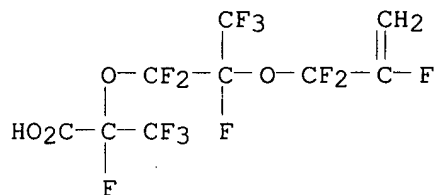
RN 259220-90-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene (9CI)
(CA INDEX NAME)

CM 1

CRN 174082-84-9

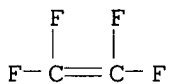
CMF C9 H3 F13 O4



CM 2

CRN 116-14-3

CMF C2 F4



L43 ANSWER 16 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:23288 HCAPLUS

DN 130:96316

TI Environmentally responsive fluoropolymers having hydrophilic and hydrophobic side chains

IN Tanaka, Yoshito; Araki, Takayuki

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F216-14

ICS C08F216-04; C08F220-04; C08F220-54

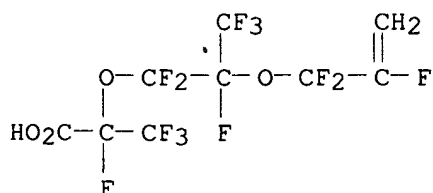
CC 37-5 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11001520	A2	19990106	JP 1997-157102	19970613
PRAI	JP 1997-157102		19970613		

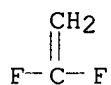
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- AB The side chains of the polymers move according to change of their environment from hydrophobic to hydrophilic condition or from hydrophilic to hydrophobic condition, so that the surface of the polymers becomes hydrophobic in a hydrophobic environment and becomes hydrophilic in a hydrophilic environment. Thus, a film of perfluoro-(9,9-dihydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenic acid)-vinylidene fluoride copolymer having CO₂H content 1.3 mol% showed advancing contact angle 99.6 and receding contact angle 24.6 in surface tension test by Wilhelmy method.
- ST environment responsive fluoropolymer hydrophilicity hydrophobicity; carboxy vinylidene fluoride polymer environment responsive; perfluorodihydrobistrifluoromethyldioxanonenic acid polymer environment responsive; surface tension fluoropolymer environment responsive
- IT Hydrophilicity
Hydrophobicity
Surface tension
(environmentally responsive fluoropolymers having hydrophilic and hydrophobic side chains)
- IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(environmentally responsive fluoropolymers having hydrophilic and hydrophobic side chains)
- IT **174082-94-1P 192575-94-3P**, Perfluoro-(propyl vinyl ether)-perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer **212957-09-0P 219541-39-6P 219541-40-9P**
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(environmentally responsive fluoropolymers having hydrophilic and hydrophobic side chains)
- IT **174082-94-1P 192575-94-3P**, Perfluoro-(propyl vinyl ether)-perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer **212957-09-0P 219541-39-6P 219541-40-9P**
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(environmentally responsive fluoropolymers having hydrophilic and hydrophobic side chains)
- RN 174082-94-1 HCAPLUS
- CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)
- CM 1
- CRN 174082-84-9
- CMF C9 H3 F13 O4



CM 2

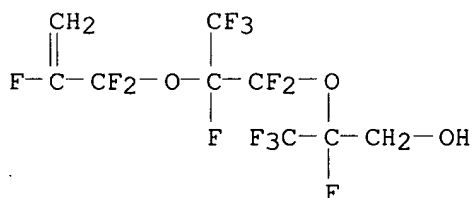
CRN 75-38-7
CMF C2 H2 F2



RN 192575-94-3 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

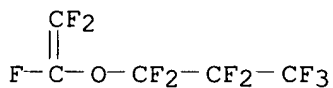
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



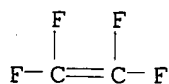
CM 2

CRN 1623-05-8
CMF C5 F10 O



CM 3

CRN 116-14-3
CMF C2 F4



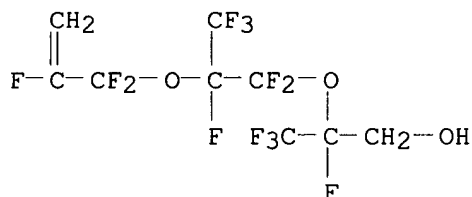
RN 212957-09-0 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-

trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene,
2,3,3,4,4,5,5-heptafluoro-1-pentene and tetrafluoroethene (9CI) (CA INDEX
NAME)

CM 1

CRN 174082-85-0

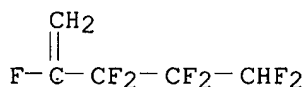
CMF C9 H5 F13 O3



CM 2

CRN 1547-26-8

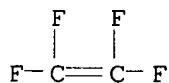
CMF C5 H3 F7



CM 3

CRN 116-14-3

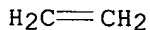
CMF C2 F4



CM 4

CRN 74-85-1

CMF C2 H4



RN 219541-39-6 HCAPLUS

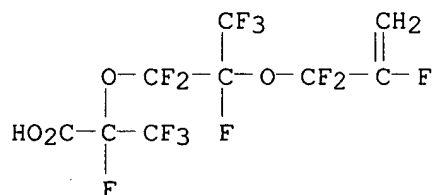
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, zinc salt (9CI) (CA INDEX NAME)

CM 1

CRN 174082-94-1
CMF (C9 H3 F13 O4 . C2 H2 F2)x
CCI PMS

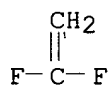
CM 2

CRN 174082-84-9
CMF C9 H3 F13 O4 .



CM 3

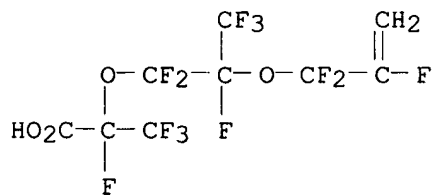
CRN 75-38-7
CMF C2 H2 F2



RN 219541-40-9 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene, 2,3,3,4,4,5,5-heptafluoro-1-pentene and tetrafluoroethene (9CI) (CA INDEX NAME)

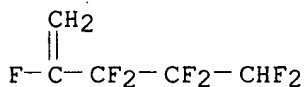
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



CM 2

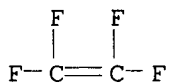
CRN 1547-26-8
CMF C5 H3 F7



CM 3

CRN 116-14-3

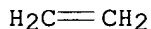
CMF C2 F4



CM 4

CRN 74-85-1

CMF C2 H4



L43 ANSWER 17 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:806727 HCAPLUS

DN 130:53447

TI Fluorochemical adhesives and adhesive films and laminates made by using the adhesives

IN Araki, Takayuki; Sagisaka, Shigehito; Tanaka, Yoshito; Kumegawa, Masahiro

PA Daikin Industries Ltd., Japan

SO PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C09J127-12

ICS B32B027-00; C08J005-12

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9855557	A1	19981210	WO 1998-JP2469	19980604
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6479161	B1	20021112	US 1999-425000	19991203
PRAI	JP 1997-149699	A	19970606		
	WO 1998-JP2469	W	19980604		

AB The adhesives, having m.p. or Tg .ltoreq.270.degree., comprises a functional fluoroethylene polymer (A) which is obtained by copolymg. (a) 0.05-30 mol% .gtoreq.1 fluoroethylene monomer having .gtoreq.1 functional group selected among carboxy and carboxylic salt groups with (b) 70-99.95 mol% .gtoreq.1 fluoroethylene monomer copolymerizable with the ingredient (a) and not contg. any of the functional groups. The adhesives retain chem. resistance, solvent resistance, weatherability, and unsusceptibility

to fouling and tenaciously adheres directly to substrates, in particular, metals, glasses, resins, etc. Thus, a 64.7:33.1:1.3:0.9 (mol) copolymer of tetrafluoroethylene, ethylene, perfluoro(1,1,5-trihydro-1-pentene), and H₂C:CFCF₂OCFCF₃CF₂OCFCF₃CO₂H, was prepd. and showed decompn. temp. 246.degree., and melt flow rate (230.degree., 5 kg/cm²) 3.2 g/10 min.

ST fluoropolymer adhesive film chem resistance; trihydroperfluoropentene tetrafluoroethylene ethylene copolymer adhesive; weather resistance fluoropolymer adhesive; multilayer tube fluoropolymer adhesive

IT Adhesive films
Adhesives
(chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT Laminated plastics, uses
Polyamides, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT Glass, uses
Metals, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(laminates; chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT Pipes and Tubes
(multilayer; chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT 24937-16-4, Nylon 12
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(3020JSX8, laminates; chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT 174082-94-1P 174082-96-3P 217433-94-8DP,
hydrolyzed
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT 7429-90-5, Aluminum, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(foils, laminates; chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

IT 25038-74-8
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(laminates; chem.- and weather-resistant fluoropolymer adhesives for manuf. of adhesive films, laminates and tubes)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 9721776 A1 HCAPLUS
- (2) Asahi Glass Co, Ltd; JP 07-228848 A 1995 HCAPLUS
- (3) Daikin Industries, Ltd; JP 09-157578 A 1997 HCAPLUS
- (4) Daikin Industries, Ltd; WO 95/33782 A1 1995 HCAPLUS

- (5) Mitsubishi Petrochemical Co, Ltd; JP 03-213336 A 1991 HCAPLUS
 (6) Nippon Carbide Industries Co, Inc; JP 05-261856 A 1993 HCAPLUS

IT 174082-94-1P 174082-96-3P 217433-94-8DP,
 hydrolyzed

RL: IMF (Industrial manufacture); PRP (Properties); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)

(chem.- and weather-resistant fluoropolymer adhesives for manuf. of
 adhesive films, laminates and tubes)

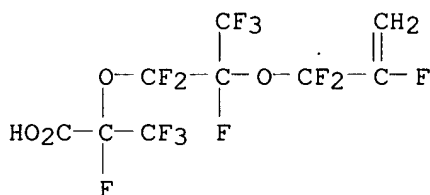
RN 174082-94-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
 (CA INDEX NAME)

CM 1

CRN 174082-84-9

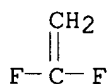
CMF C9 H3 F13 O4



CM 2

CRN 75-38-7

CMF C2 H2 F2



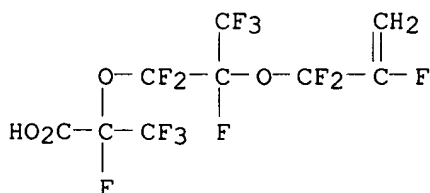
RN 174082-96-3 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene and
 tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

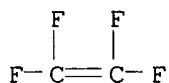
CRN 174082-84-9

CMF C9 H3 F13 O4



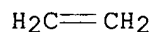
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

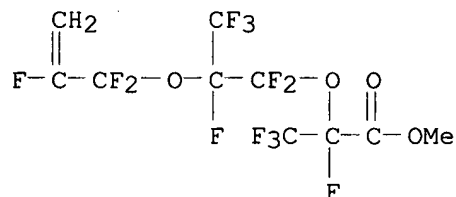
CRN 74-85-1
CMF C2 H4



RN 217433-94-8 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

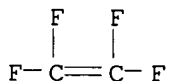
CM 1

CRN 174082-83-8
CMF C10 H5 F13 O4



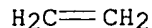
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1
CMF C2 H4



L43 ANSWER 18 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:795313 HCAPLUS

DN 130:53510

TI Fluoropolymer composites with retention of the design of substrates

IN Araki, Takayuki; Tanaka, Yoshito; Kumekawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 10329282	A2	19981215	JP 1997-145359	19970603
PRAI	JP 1997-145359		19970603		

AB Title polymers consist of 0.05-30 mol% .gtoreq.1 fluorinated ethylene-type monomers having .gtoreq.1 functional groups selected from OH, carboxyl, carboxylic acid, carboxylic ester, and epoxy groups and 70-99.95 mol% .gtoreq.1 nonfunctionalized fluorinated ethylene-type monomers and the composites comprising the polymers and substrates show retention of the design of the substrates. The composites are (a) substrates with the materials as (powd.) coatings or (b) substrates with the materials as water-based dispersions or films. Alternatively, the substrates are metals, nonmetallic inorg. materials, glass, concrete, cement, tile, ceramic plates, synthetic polymers, or artificial marble. The fluoropolymers show improved adhesion to the substrates. Thus, 10.9% (concn.) aq. dispersion of 97.7:1.2:1.1 (mol) tetrafluoroethylene-perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol) copolymer was sprayed on a SUS 304 sheet, dired at 90.degree. for 10 min, and baked at 380.degree. to give a primed sheet, which was coated with water-based tetrafluoroethylene-hexafluoropropylene copolymer, dired at 90.degree. for 10 min, and baked at 380.degree. for 20 min to give a transparent colorless foam-free coating (i.e., retention of the color of SUS 304) showing cross-cut adhesion 100/100.

ST fluoropolymer composite substrate design retention; hydroxy contg fluoroethylene copolymer; perfluoro propyl vinyl ether tetrafluoroethylene copolymer; powd coating primer fluoropolymer hydroxy substituted; metal substrate fluoropolymer composite improved adhesion; glass substrate fluoropolymer composite improved adhesion; concrete substrate fluoropolymer composite improved adhesion; cement substrate fluoropolymer composite improved adhesion; ceramic substrate fluoropolymer composite improved adhesion; synthetic polymer substrate fluoropolymer improved adhesion; artificial marble substrate fluoropolymer improved adhesion

IT Borosilicate glasses

RL: MSC (Miscellaneous)

(Pyrex, substrates; fluoropolymers for composites showing improved adhesion to substrates)

IT Ceramics

(fluoropolymers for composites showing improved adhesion to substrates)

IT Laminated plastics, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (fluoropolymers for composites showing improved adhesion to substrates)

IT Primers (paints)
 (fluoropolymers for composites showing retention of design of substrates)

IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluoropolymers for composites showing retention of design of substrates)

IT Coating materials
 (powder; fluoropolymers for composites showing retention of design of substrates)

IT Cement (construction material)
 Concrete
 Tiles
 (substrates; fluoropolymers for composites showing improved adhesion to substrates)

IT Marble, artificial
 RL: MSC (Miscellaneous)
 (substrates; fluoropolymers for composites showing improved adhesion to substrates)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoropolymers for composites showing retention of design of substrates)

IT 11109-50-5, SUS 304 37321-70-3, A 1050P
 RL: MSC (Miscellaneous)
 (substrates; fluoropolymers for composites showing retention of design of substrates)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoropolymers for composites showing retention of design of substrates)

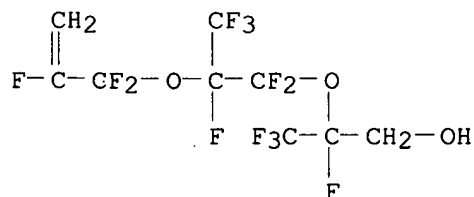
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

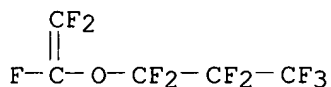
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

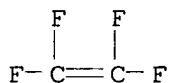
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 19 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:795312 HCAPLUS

DN 130:53509

TI Transparent fluoropolymer composites

IN Araki, Takayuki; Tanaka, Yoshihito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10329281	A2	19981215	JP 1997-143953	19970602
PRAI	JP 1997-143953		19970602		

AB Title transparent composites consist of transparent substrates and fluoropolymers comprising 0.05-30 mol% .gtoreq.1 fluorinated ethylene-type monomers having .gtoreq.1 functional groups selected from OH, carboxyl, carboxylic acid, carboxylic ester, and epoxy groups and 70-99.95 mol% .gtoreq.1 nonfunctionalized fluorinated ethylene-type monomers. The polymers are applied as (powd.) coatings, water-based dispersions, or films, on the substrates, i.e., glass or synthetic polymers, esp. polycarbonates. The fluoropolymers show improved adhesion to the substrates. Thus, 97.0:2.0:1.0 (mol) tetrafluoroethylene-perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol) copolymer powder was pressed, pulverized, and pressed to give a sheet, which was placed on a Pyrex glass sheet and melted at 330.degree. for 10 min to give a glass-laminated sheet showing 90.degree. peeling strength 2.5 kg/cm.

ST fluoropolymer composite transparent substrate adhesion strength; hydroxy contg fluoroethylene copolymer transparent substrate; perfluoro propyl

vinyl ether tetrafluoroethylene copolymer; glass substrate fluoropolymer composite peeling resistance; synthetic polymer substrate fluoropolymer improved adhesion; polycarbonate substrate fluoropolymer improved adhesion

IT Borosilicate glasses
 RL: MSC (Miscellaneous)
 (Pyrex, substrates; composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT Heat-resistant materials
 Transparent materials
 Water-resistant materials
 (composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT Laminated plastics, properties
 RL: PRP (Properties)
 (composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT Coating materials
 (powder; composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT Polycarbonates, miscellaneous
 RL: MSC (Miscellaneous)
 (substrates; composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (composites of fluoropolymers and transparent substrates with improved adhesion strength)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (composites of fluoropolymers and transparent substrates with improved adhesion strength)

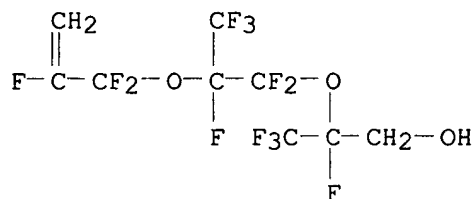
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

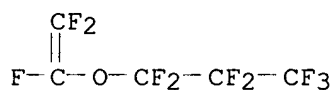
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

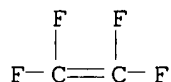
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 20 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:795311 HCAPLUS

DN 130:67555

TI Fluoropolymer composites without binder layers

IN Araki, Takayuki; Tanaka, Yoshito; Kumekawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 55, 56, 57, 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10329280	A2	19981215	JP 1997-143952	19970602
PRAI	JP 1997-143952		19970602		

AB Title polymers consist of 0.05-30 mol% .gtoreq.1 fluorinated ethylene-type monomers having .gtoreq.1 functional groups selected from OH, carboxyl, carboxylic acid, carboxylic ester, and epoxy groups and 70-99.95 mol% .gtoreq.1 nonfunctionalized fluorinated ethylene-type monomers and are applied to substrates directly, i.e., without binder layers to give title composites. The composites are (a) substrates with the materials as

(powd.) coatings or (b) substrates with the materials as water-based dispersions or films. Alternatively, the substrates are metals, nonmetallic inorg. materials, glass, concrete, cement, tile, ceramic plates, or synthetic polymers, esp., polycarbonates. The fluoropolymer materials show improved adhesion to the substrates. Thus, 10.9% (concn.) aq. dispersion of 97.7:1.2:1.1 (mol) tetrafluoroethylene-perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol) copolymer was sprayed on a SUS 304 sheet, dried at 90.degree. for 10 min, and baked at 380.degree. to give a primed sheet, which was coated with water-based PTFE compn., dried at 90.degree. for 10 min, and baked at 380.degree. for 20 min to give a test piece showing cross-cut adhesion 100/100.

- ST fluoropolymer composite binder layer free; hydroxy contg fluoroethylene copolymer; perfluoro propyl vinyl ether tetrafluoroethylene copolymer; powd coating primer fluoropolymer hydroxy substituted; metal substrate fluoropolymer composite improved adhesion; glass substrate fluoropolymer composite improved adhesion; concrete substrate fluoropolymer composite improved adhesion; cement substrate fluoropolymer composite improved adhesion; ceramic substrate fluoropolymer composite improved adhesion; synthetic polymer substrate fluoropolymer improved adhesion; polycarbonate substrate fluoropolymer improved adhesion
- IT Borosilicate glasses
RL: MSC (Miscellaneous)
(Pyrex, substrates; fluoropolymers for composites showing improved adhesion to substrates)
- IT Ceramics
Primers (paints)
(fluoropolymers for composites showing improved adhesion to substrates)
- IT Fluoropolymers, uses
Laminated plastics, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fluoropolymers for composites showing improved adhesion to substrates)
- IT Coating materials
(powder; fluoropolymers for composites showing improved adhesion to substrates)
- IT Cement (construction material)
Concrete
Tiles
(substrates; fluoropolymers for composites showing improved adhesion to substrates)
- IT Polycarbonates, miscellaneous
RL: MSC (Miscellaneous)
(substrates; fluoropolymers for composites showing improved adhesion to substrates)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoropolymers for composites showing improved adhesion to substrates)
- IT 11109-50-5, SUS 304 37321-70-3, A 1050P
RL: MSC (Miscellaneous)
(substrates; fluoropolymers for composites showing improved adhesion to substrates)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoropolymers for composites showing improved adhesion to substrates)

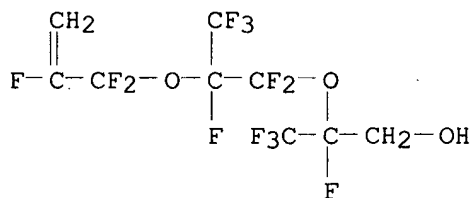
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

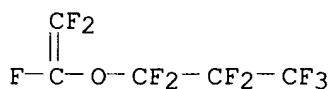
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

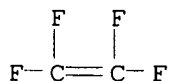
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 21 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:789084 HCAPLUS

DN 130:25984

TI Heat-resistant scattering-inhibiting composite materials having good transparency

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B32B027-30

ICS B05D007-24; C09D127-12; C08F214-18; C03C027-12; C03C017-32

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9852748	A1	19981126	WO 1998-JP2185	19980518
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	JP 1997-131155		19970521		
AB	Title composite materials, esp. useful for light bulbs and fire safety glasses, comprise functional group-contg. fluorinated ethylenic copolymers having good adhesion to substrates, which are prepd. by copolyng. (a) 0.05-30 mol% of at least one fluorinated ethylenic monomer having at least one functional group selected from hydroxyl, carboxyl, carboxylic salt, carboxylic ester, and epoxy groups with (b) 70-99.95 mol% of at least one fluorinated ethylenic monomer free from the above functional groups. Thus, a powder coating compn. comprising OH-contg. fluoropolymer prepd. from CH ₂ :CF ₂ CF ₂ OCF(CF ₃)CF ₂ OCF(CF ₃)CH ₂ OH, TFE, and perfluoro(Pr vinyl ether) was press-molded to give a cold press sheet, which was placed on a glass plate and heated at 330.degree. for 10 min giving adhesive strength 2.5 kg/cm, compared with 0.2 kg/cm using nonfunctional group-contg. fluoropolymer from TFE and perfluoro(Pr vinyl ether).				
ST	heat resistant scattering inhibiting composite material prepn fluoropolymer; functional group contg fluorinated ethylenic copolymer powder coating compn; fluoropropyl vinyl ether TFE fluoroethylene hydroxyl fluoropolymer; light bulb glass heat resistant scattering inhibiting composite material				
IT	Electric lamps (envelopes; prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Coating materials (heat-resistant; prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Glass, uses RL: MSC (Miscellaneous); TEM (Technical or engineered material use); USES (Uses) (laminate with functional group-contg. fluoropolymer or coating substrate; prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Fluoropolymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (laminate with functional group-contg. fluoropolymer; prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Composites Heat-resistant materials (prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Laminated plastics, preparation RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	Fluoropolymers, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (prepn. of heat-resistant scattering-inhibiting composite materials having good transparency)				
IT	192575-94-3P RL: IMF (Industrial manufacture); TEM (Technical or engineered				

material use); **PREP (Preparation)**; **USES (Uses)**
(coating compn., film, laminate; prepn. of heat-resistant
scattering-inhibiting composite materials having good transparency)

IT 26655-00-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); **PREP (Preparation)**; **USES (Uses)**

(laminate with functional group-contg. fluoropolymer; prepn. of
heat-resistant scattering-inhibiting composite materials having good
transparency)

IT 9002-84-0, PTFE

RL: TEM (Technical or engineered material use); **USES (Uses)**

(laminate with functional group-contg. fluoropolymer; prepn. of
heat-resistant scattering-inhibiting composite materials having good
transparency)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 9721776 A HCAPLUS
- (2) Anon; WO 9721779 A HCAPLUS
- (3) Asahi Chemical Industry Co, Ltd; JP 05-1118 A 1993 HCAPLUS
- (4) Asahi Glass Co, Ltd; JP 04-33904 A 1992 HCAPLUS
- (5) Asahi Glass Co, Ltd; JP 06-263951 A 1994 HCAPLUS
- (6) Daikin Industries, Ltd; JP 09-157578 A 1997 HCAPLUS
- (7) Daikin Industries, Ltd; JP 09-157616 A 1997 HCAPLUS
- (8) Japan Synthetic Rubber Co, Ltd; JP 05-194668 A 1993 HCAPLUS
- (9) Nippon Carbide Industries Co, Inc; JP 03-203640 A 1991 HCAPLUS

IT 192575-94-3P

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered
material use); **PREP (Preparation)**; **USES (Uses)**

(coating compn., film, laminate; prepn. of heat-resistant
scattering-inhibiting composite materials having good transparency)

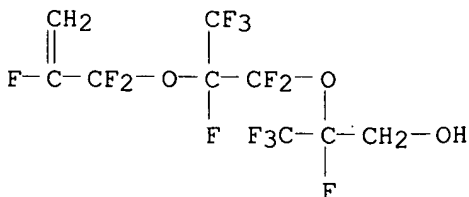
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
NAME)

CM 1

CRN 174082-85-0

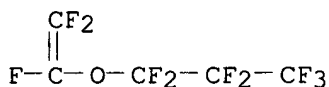
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

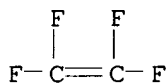
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 22 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:761837 HCAPLUS

DN 130:4656

TI Composite materials with low friction surface and functional fluoropolymers for their formation

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 118 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B32B027-30

ICS B05D007-24; C09D127-12; C08F214-18

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851495	A1	19981119	WO 1998-JP2109	19980513
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI JP 1997-127175 19970516

AB The materials are prepd. without any complicated step by applying a fluoropolymers layer to a substrate. The fluoropolymers are obtained from 0.05-30 mol% of .gtoreq.1 fluorinated ethylenic monomer bearing OH, COOH or its salts and esters or/and epoxy groups, and 70-99.95 mol% of .gtoreq.1 fluorinated ethylenic monomer free from the above functional groups. Thus, polymg. perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol) and perfluoro(Pr vinyl ether) under a pressure of tetrafluoroethylene (8.5 kg/cm²) in water contg. ammonium perfluorooctanoate gave a copolymer in dispersion which was sprayed on an Al plate to thickness 5 .mu.m, dried at 90.degree. for 10 min and baked at 380.degree. for 20 min. The resulting plate was coated with a dispersion of Polyflon TFE-EK 4300CRN (a PTFE), dried and baked similarly to give a coated plate with cross-cut adhesion 100/100.

ST slidable coating hydroxy fluoropolymer primer; low friction coating fluoropolymer sliding part; adhesive hydroxy perfluoro resin sliding part

IT Adhesives

Laminated materials

Primers (paints)
 (composite materials with low friction surface and functional fluoropolymers for their formation)

IT Fluoropolymers, uses
 RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (composite materials with low friction surface and functional fluoropolymers for their formation)

IT Coating materials
 (powder, functional group-contg. perfluoropolymers; composite materials with low friction surface and functional fluoropolymers for their formation)

IT Polyimides, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (substrate for fluoropolymer laminates; composite materials with low friction surface and functional fluoropolymers for their formation)

IT 9002-84-0, PTFE
 RL: TEM (Technical or engineered material use); USES (Uses)
 (composite materials with low friction surface and functional fluoropolymers for their formation)

IT 7429-90-5, Aluminum, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluoropolymer laminates; composite materials with low friction surface and functional fluoropolymers for their formation)

IT 212771-07-8, Neoflon PFA-ACX 31 212771-28-3, Neoflon PFA-AF 0100
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminate; composite materials with low friction surface and functional fluoropolymers for their formation)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (low-friction coating; composite materials with low friction surface and functional fluoropolymers for their formation)

IT 11109-52-7, SUS430 12597-69-2, Steel, uses 25036-53-7, Kapton 200H
 RL: TEM (Technical or engineered material use); USES (Uses)
 (substrate for fluoropolymer laminates; composite materials with low friction surface and functional fluoropolymers for their formation)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

- (1) Asahi Chemical Industry Co Ltd; JP 51118 A 1993
- (2) Asahi Glass Co Ltd; JP 433904 A 1992
- (3) Asahi Glass Co Ltd; JP 06263951 A 1994 HCAPLUS
- (4) Daido Metal Co Ltd; GB 2161820 A HCAPLUS
- (5) Daido Metal Co Ltd; DE 3520068 A HCAPLUS
- (6) Daido Metal Co Ltd; US 4626365 A HCAPLUS
- (7) Daido Metal Co Ltd; JP 60258297 A 1985 HCAPLUS
- (8) Daikin Industries Ltd; WO 9721776 A HCAPLUS
- (9) Daikin Industries Ltd; WO 9721779 A HCAPLUS
- (10) Daikin Industries Ltd; JP 09157578 A 1997 HCAPLUS
- (11) Daikin Industries Ltd; JP 09157616 A 1997 HCAPLUS
- (12) Japan Synthetic Rubber Co Ltd; JP 05194668 A 1993 HCAPLUS
- (13) Nippon Oil Seal Kogyo K K; JP 5439480 A 1979

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES

(Uses)

(low-friction coating; composite materials with low friction surface and functional fluoropolymers for their formation)

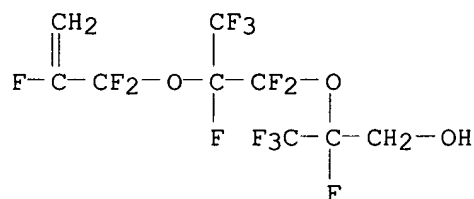
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

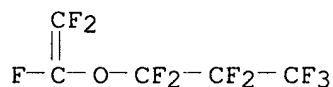
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

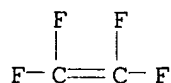
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 23 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:742474 HCAPLUS

DN 130:4964

TI Water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion

IN Araki, Takayuki; Tanaka, Yoshito; Kumekawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese
 IC ICM B32B027-30
 ICS B32B007-02
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10305538	A2	19981117	JP 1997-114804	19970502
PRAI	JP 1997-114804		19970502		

AB The composites, useful for constructions for kitchens or bathrooms, comprise substrates coated with functional-group- and F-contg. ethylenic polymers which are prepd. from (a) 0.05-30 mol% .gtoreq.1 F-contg. ethylenic monomers having .gtoreq.1 OH, carboxyl(ate), and/or epoxy group and (b) 70-99.95 mol% .gtoreq.1 F-contg. ethylenic monomers without the functional groups in (a). Thus, A 1050P was sprayed with an aq. dispersion contg. 1.2:1.1:97.7 perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer to form a primer layer, sintered, further sprayed with Polyflon TFE-EK 4300CRN (PTFE-based aq. coating), and sintered to give a composite showing cross-cut adhesion test 100/100.

ST water repellent fluoropolymer coating substrate adhesion; functionalized fluoropolymer primer aluminum composite adhesion; transparent water repellent coating fluoropolymer construction; perfluoropropyl vinyl ether perfluorohydrofluoromethyloxanonenol copolymer coating

IT Borosilicate glasses
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (Pyrex, substrate; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Plates
 Plates
 (ceramic, substrates; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (functionalized; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Ceramics
 Ceramics
 (plates, substrates; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Concrete
 (substrate; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Glass, uses
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (substrate; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Tiles
 (substrates; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Polymers, uses
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (substrates; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Fluoropolymers, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (topcoatings; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Coating materials
 (transparent; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Cement (construction material)
 Construction materials
 (water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT Coating materials
 (water-resistant, transparent; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)
 (primers; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT 11109-50-5, SUS 304 37321-70-3, A 1050P
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (substrate; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT 9002-84-0, Polyflon TFE-EK 4300CRN 25067-11-2, Neoflon FEP-ND 1 212771-07-8, Neoflon PFA-ACX 31
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (topcoatings; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)
 (primers; water-repellent and transparent fluoropolymer/substrate composites with good interlayer adhesion)

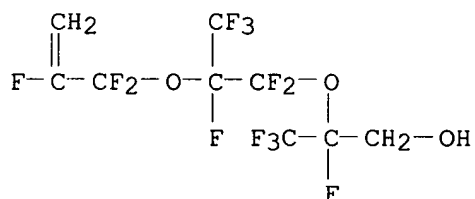
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

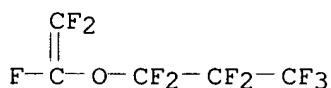
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

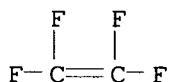
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 24 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:742464 HCAPLUS

DN 129:344297

TI Sliding composites coated with metal oxides containing fluorine-containing ethylenic polymers

IN Araki, Takayuki; Tanaka, Gijin; Kumekawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B009-00

ICS B32B027-30; C09D127-12

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 55, 56, 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10305516	A2	19981117	JP 1997-115874	19970506
PRAI	JP 1997-115874		19970506		

AB The composites comprise substrates coated with a metal oxide-based layer contg. ultrafine dispersed particles of functional group-pendent fluoroethylene copolymers of (A) 0.05-50 mol% .gtoreq.1 functional group- and F-contg. ethylenically unsatd. monomers and (B) 50-99.5 mol% .gtoreq.1

functional group-free and F-contg. ethylenically unsatd. monomers. Thus, 44.8 g aq. dispersion contg. a copolymer of perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol), perfluoro(Pr vinyl ether), and tetrafluoroethylene (polymer concn. 22.3%, particle size 85 nm) was mixed with 87.5 g silica sol [prepd. from Si(OEt)₄, MeSi(OEt)₃, and EtOH] and stirred at room temp. for 1 h to give a coating, which was then applied on a Pyrex glass plate, dried, and fired at 250.degree. for 60 min to give a test piece with a 6-.mu.m coating showing haze 0.07%, pencil hardness 6H, good adhesion to the substrate, nonstickiness, good water repellency, and good abrasion resistance.

- ST sliding coating metal oxide fluoropolymer dispersion; hydroxy pendent fluoropolymer dispersion silica sol; abrasion water resistance sliding composite; unsatd fluoro alc copolymer water repellent; fluoro propyl vinyl ether copolymer sliding; fluoroethylene copolymer coating sliding composite
- IT Borosilicate glasses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Pyrex, substrate; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Coating materials
Coating materials
(antisoiling, weather-resistant; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Coating materials
Coating materials
(heat- and water-resistant; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Machinery parts
(sliding; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Ceramics
(substrate; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Metals, uses
Polymers, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(substrate; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT Coating materials
(transparent; sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sliding composites coated with metal oxide dispersing fluorine-contg. ethylenic polymers)
- IT 1344-28-1P, Alumina, uses 7631-86-9P, Silica, uses 13463-67-7P, Titania, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)
(sliding composites coated with metal oxide dispersing fluorine-contg.
ethylenic polymers)

IT 78-10-4, Tetraethoxysilane 2031-67-6, Methyltriethoxysilane
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(sliding composites coated with metal oxide dispersing fluorine-contg.
ethylenic polymers)

IT 37321-70-3, A 1050P
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(substrate; sliding composites coated with metal oxide dispersing
fluorine-contg. ethylenic polymers)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-
tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene
copolymer

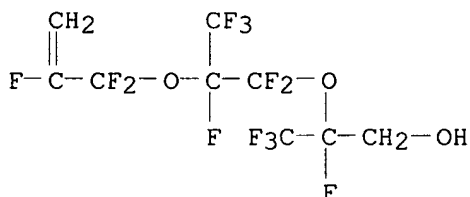
RL: IMF (Industrial manufacture); MOA (Modifier or additive
use); PRP (Properties); TEM (Technical or engineered material use);
PREP (Preparation); USES (Uses)
(sliding composites coated with metal oxide dispersing fluorine-contg.
ethylenic polymers)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
NAME)

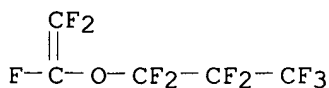
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



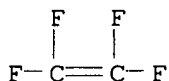
CM 2

CRN 1623-05-8
CMF C5 F10 O



CM 3

CRN 116-14-3
CMF C2 F4



L43 ANSWER 25 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:742285 HCAPLUS

DN 130:4639

TI Adhesive composite materials for nonstick parts of office automation machines

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 118 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B32B027-30

ICS B05D007-24; C09D127-12; C08F214-18; G03G015-20; G03G015-02;

G03G015-16; G03G015-14

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9850229	A1	19981112	WO 1998-JP1940	19980427
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6500537	B1	20021231	US 2000-423045	20000121
PRAI	JP 1997-113980	A	19970501		
	WO 1998-JP1940	W	19980427		

AB The materials having good heat resistance, adhesiveness, water- and oil-repellency, stain removing properties, chem. resistance, rust resistance, antimicrobial properties, actinic radiation resistance and wear resistance can be produced without any complicated step by applying a fluorinated adhesive layer to a substrate before topping with nonstick covering layers. The adhesive is obtained from a fluorinated ethylenic copolymer contg. 0.05-30 mol% of .gtoreq.1 fluorinated ethylenic monomer bearing OH, COOH or its salts and esters or/and epoxy groups, and 70-99.95 mol% of .gtoreq.1 fluorinated ethylenic monomer free from the above functional groups. Thus, polymg. perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol) and perfluoro(Pr vinyl ether) under a pressure of tetrafluoroethylene (8.5 kg/cm²) in water contg. ammonium perfluorooctanoate gave a copolymer in dispersion which was sprayed on an Al plate to thickness 5 .mu.m, dried at 90.degree. for 10 min and baked at 380.degree. for 20 min. The resulting plate was coated with a dispersion of Polyflon TFE-EK 4300CRN (a PTFE), dried and baked similarly to give a coated plate with cross-cut adhesion 100/100.

ST nonstick coating fluoropolymer office automation machine; adhesive hydroxy perfluoro resin office automation machine; water repellency coating primer fluoropolymer; oil repellency coating primer fluoropolymer; heat resistance coating primer fluoropolymer; soiling resistance coating primer fluoropolymer; chem resistance coating primer fluoropolymer; wear resistance coating primer fluoropolymer; facsimile machine nonstick coating primer; copying machine nonstick coating primer

IT Adhesives

Electrophotographic apparatus

Laminated materials

- Primers (paints)
(adhesive composite materials for nonstick parts of office automation machines)
- IT Fluoropolymers, uses
RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(adhesive composite materials for nonstick parts of office automation machines)
- IT Polyimides, uses
Polyimides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyamide-, substrate for fluoropolymer laminates; adhesive composite materials for nonstick parts of office automation machines)
- IT Polyamides, uses
Polyamides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyimide-, substrate for fluoropolymer laminates; adhesive composite materials for nonstick parts of office automation machines)
- IT Glass, uses
Polyimides, uses
Polythiophenylenes
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate for fluoropolymer laminates; adhesive composite materials for nonstick parts of office automation machines)
- IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(surface covering; adhesive composite materials for nonstick parts of office automation machines)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(adhesive/primer; adhesive composite materials for nonstick parts of office automation machines)
- IT 212771-07-8, Neoflon PFA-ACX 31 212771-28-3, Neoflon PFA-AF 0100
RL: TEM (Technical or engineered material use); USES (Uses)
(laminate; adhesive composite materials for nonstick parts of office automation machines)
- IT 174082-92-9P, Perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(powd. coating primer; adhesive composite materials for nonstick parts of office automation machines)
- IT 7429-90-5, Aluminum, uses 11109-52-7, SUS430 12597-69-2, Steel, uses 25036-53-7, Kapton 200H
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate for fluoropolymer laminates; adhesive composite materials for nonstick parts of office automation machines)
- IT 9002-84-0, Polyflon TFE-EK 4300CRN 25067-11-2, Neoflon FEP-ND 1
RL: TEM (Technical or engineered material use); USES (Uses)
(surface covering; adhesive composite materials for nonstick parts of office automation machines)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Anon; WO 9721776 A HCAPLUS
(2) Anon; WO 9721779 A HCAPLUS

- (3) Asahi Chemical Industry Co, Ltd; JP 05-1118 A 1993 HCAPLUS
- (4) Asahi Glass Co, Ltd; JP 02-101487 A 1990 HCAPLUS
- (5) Asahi Glass Co, Ltd; JP 04-33904 A 1992 HCAPLUS
- (6) Asahi Glass Co, Ltd; JP 06-263951 A 1994 HCAPLUS
- (7) Daido Metal Co, Ltd; JP 03-24196 A 1991 HCAPLUS
- (8) Daikin Industries, Ltd; JP 09-157578 A 1997 HCAPLUS
- (9) Daikin Industries, Ltd; JP 09-157616 A 1997 HCAPLUS
- (10) Japan Synthetic Rubber Co, Ltd; JP 05-194668 A 1993 HCAPLUS
- (11) KK IST; JP 63-104833 A 1988 HCAPLUS
- (12) Nitto Denko Corp; JP 06-8350 A 1994 HCAPLUS
- (13) Nitto Electric Industrial Co, Ltd; JP 59-222335 A 1984 HCAPLUS
- (14) Sharp Corp; JP 02-9625 A 1990 HCAPLUS
- (15) Shin-Etsu Chemical Co, Ltd; JP 06-126896 A 1994 HCAPLUS

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(adhesive/primer; adhesive composite materials for nonstick parts of office automation machines)

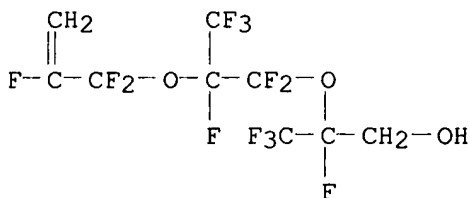
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

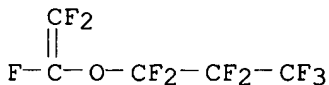
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

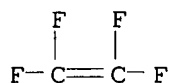
CMF C5 F10 O



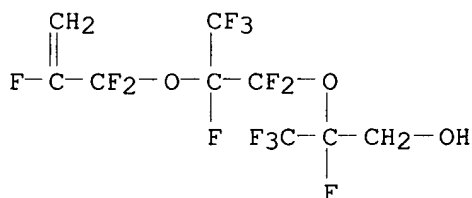
CM 3

CRN 116-14-3

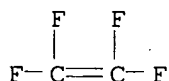
CMF C2 F4



IT 174082-92-9P, Perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (powd. coating primer; adhesive composite materials for nonstick parts of office automation machines)
 RN 174082-92-9 HCAPLUS
 CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)
 CM 1
 CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2
 CRN 116-14-3
 CMF C2 F4



L43 ANSWER 26 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1998:706169 HCAPLUS
 DN 129:317259
 TI Chemical-resistant composite material
 IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo
 PA Daikin Industries, Ltd., Japan
 SO PCT Int. Appl., 90 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 IC ICM B32B027-30
 ICS B05D007-24; C09D127-12; C08F214-18
 CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9846426	A1	19981022	WO 1998-JP1703	19980413
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 976544	A1	20000202	EP 1998-912797	19980413
	R: DE, FR, GB, IT				
PRAI	JP 1997-97614		19970415		
	WO 1998-JP1703		19980413		
AB	A chem.-resistant composite material is prepd. by applying to a base material a fluoropolymer with excellent adhesion. This material is prepd. by applying to a base material a fluoroethylene polymer having functional groups and prepd. by copolymg. (a) 0.05-30 mol% of at least one fluoroethylenic monomer having at least one functional group selected from hydroxyl, carboxyl, carboxylic salt, carboxylic ester and epoxy groups, and (b) 70-99.95 mol% of at least one fluoroethylene monomer free from the above functional groups.				
ST	fluoropolymer ethylenic composite chem resistance				
IT	Coating materials				
	(chem. resistant; chem.-resistant composite material)				
IT	Chemically resistant materials				
	Composites				
	Containers				
	Laminated materials				
	(chem.-resistant composite material)				
IT	Glass, uses				
	RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)				
	(chem.-resistant composite material)				
IT	Fluoropolymers, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(chem.-resistant composite material)				
IT	Polyimides, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(film; chem.-resistant composite material)				
IT	26655-00-5P 192575-94-3P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(chem.-resistant composite material)				
IT	7429-90-5, Aluminum, uses 11109-50-5, SUS 304 12597-69-2, Steel, uses 14808-60-7, Quartz, uses 37321-70-3, A 1050P				
	RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)				
	(chem.-resistant composite material)				
IT	9002-84-0, Polyflon EK 4300CRN 25067-11-2, Neoflon ND 1 212771-07-8, Neoflon PFA-ACX 31				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(chem.-resistant composite material)				

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Asahi Chemical Industry Co Ltd; JP 51118 A 1993
- (2) Asahi Glass Co Ltd; JP 433904 A 1992
- (3) Asahi Glass Co Ltd; JP 06263951 A 1994 HCAPLUS
- (4) Central Glass Co Ltd; JP 01185376 A 1989 HCAPLUS
- (5) Daikin Industries Ltd; JP 09157578 A 1997 HCAPLUS
- (6) Daikin Industries Ltd; JP 09157616 A 1997 HCAPLUS
- (7) Daikin Industries Ltd; WO 9721776 A 1997 HCAPLUS

- (8) Daikin Industries Ltd; WO 9721779 A 1997 HCAPLUS
- (9) Japan Synthetic Rubber Co Ltd; JP 05194668 A 1993 HCAPLUS
- (10) Mitsui Petrochemical Industries Ltd; JP 62187739 A 1987 HCAPLUS

IT 192575-94-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chem.-resistant composite material)

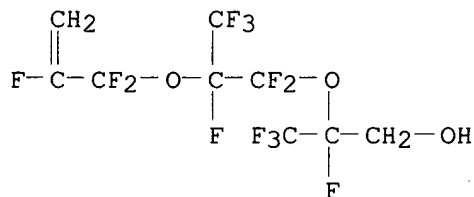
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

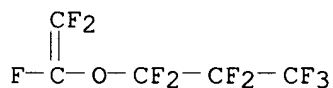
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

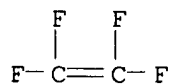
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 27 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:675306 HCAPLUS

DN 129:303493

TI Nonadhesive composites with good heat, water, chemical, and staining resistances, and transparency

IN Araki, Takayuki; Tanaka, Yoshihito; Kumegawa, Masahiro; Oka, Noritoshi;

Sanemasa, Hisato; Shimizu, Tetsuo
 PA Daikin Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B32B027-30
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10278193	A2	19981020	JP 1997-85408	19970403
PRAI	JP 1997-85408		19970403		

AB Title materials are obtained by applying (A) materials from functional group- and F-contg. ethylenic polymers prepd. by copolyimg. (a) 0.05-30 mol% .gtoreq.1 functional group- and F-contg. ethylenic monomers having .gtoreq.1 functional groups chosen from OH, CO₂H, carboxylate salt, carboxylate ester, and epoxy groups and (b) 70-99.95 mol% .gtoreq.1 functional group-free F-contg. ethylenic monomers on (B) substrates. Thus, an aq. dispersion contg. functional group- and F-contg. ethylenic polymer [from perfluoro(Pr vinyl ether) 1.2, perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol) 1.1, and CF₂CF₂ 97.7 mol%], was sprayed on a degreased Al sheet, dried, fired, further spray-coated with Polyflon TFE Enamel EK 4300CRN (PTFE-based aq. coating), dried, and fired to give a composite material with good bonding property of the coating to the Al sheet.

ST nonadhesive composite material heat water resistance; chem staining resistance nonadhesive composite material; transparency nonadhesive fluoropolymer composite material; perfluoro propyl vinyl ether copolymer primer; aluminum fluoropolymer primer coating nonadhesive composite

IT Coating materials
 (chem. resistant; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)

IT Polyimides, uses
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (films; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)

IT Coating materials
 Coating materials
 (heat- and water-resistant; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)

IT Plate glass
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)

IT Laminated plastics, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (nonadhesive composite materials with good heat, water, chem., and

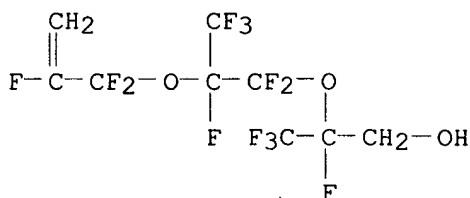
- staining resistances, transparency, and bonding property to substrates)
- IT Polyimides, uses
Polyimides, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyether-, film; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT Polyethers, uses
Polyethers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyimide-, film; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT Coating materials
(transparent; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT 26655-00-5P, Perfluoro(propyl vinyl ether)-tetrafluoroethylene copolymer
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(film; fluoropolymer-coated nonadhesive composites with good heat, water, chem., and staining resistances, and transparency)
- IT 25036-53-7, Kapton 200H 25038-81-7
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(film; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT 9002-84-0, Polyflon EK 4300CRN 25067-11-2, Neoflon FEP-ND 1
212771-07-8, Neoflon PFA-ACX 31
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT 11109-50-5, SUS 304 12597-69-2, Steel, uses 37321-70-3, A 1050P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(sheet; nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(nonadhesive composite materials with good heat, water, chem., and staining resistances, transparency, and bonding property to substrates)
- RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

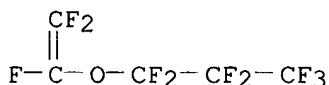
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

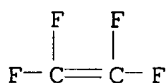
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 28 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:675289 HCAPLUS

DN 129:332232

TI Water-repellent transparent composites having fluoropolymer coatings on surfaces for automobile glasses

IN Araki, Takahiro; Tanaka, Yoshihito; Kumekawa, Masahiro; Oka, Noritoshi;
Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B009-00

ICS B32B027-20; C08F214-18; C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10278164	A2	19981020	JP 1997-86770	19970404
PRAI	JP 1997-86770		19970404		

AB Title composites with abrasion, heat and scratch resistance, consist of (i) a substrate and (ii) a coating layer contg. functional group-contg. ethylenic fluoropolymer particles dispersed in metal oxides wherein the particles are derived from (a) 0.05-50 mol% of .gtoreq.1 F-contg. ethylenic monomer contg. .gtoreq.1 functional group selected from OH, CO₂H, carboxylic acid salt, carboxy ester, and epoxy groups and (b) 50-99.95 mol% of .gtoreq.1 F-contg. ethylenic monomer not contg. the functional groups. Thus, 99.2:0.3:0.5 (mol%) copolymer of F₂C:CF₂, F₂C:CFOC₃F₇, and H₂C:CFCF₂OC(CF₃)FCF₂OC(CF₃)FCH₂OH was dispersed in a silica sol prep'd. from 54 g Si(OEt)₄ and 46 g SiMe(OEt)₃ to give a coating soln., which was applied onto a Pyrex glass, dried, and baked at 250.degree. for 60 min. The obtained composite showed haze 0.07%, pencil hardness (JIS K 5401) 6H, and water contact angle 110.degree. initially and 88.degree. after 3000-time rubbing using flannel under 1.5 kg/4 cm² load.

ST perfluoropropyl vinyl ether coating abrasion resistance; fluoroethylene silica sol coating heat resistance; hydroxyfluoropolymer ethoxysilane coating scratch resistance; fluoropolymer coating automobile glass transparency; metal oxide fluoropolymer composite water repellency

IT Borosilicate glasses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (Pyrex, substrate; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Coating materials
 (abrasion-resistant; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Oxides (inorganic), uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Coating materials
 Coating materials
 (heat- and water-resistant; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Automobiles
 (parts, glass; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Coating materials
 (scratch-resistant; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT Coating materials
 (transparent; coating compns. contg. fluoropolymer particles and metal oxides for automobile glass)

IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
(Technical or engineered material use); **PREP (Preparation)**; USES
(Uses)

(coating compns. contg. fluoropolymer particles and metal oxides for
automobile glass)

IT 1344-28-1, Aluminum oxide, uses 7631-86-9, Silicon oxide, uses
13463-67-7, Titanium oxide, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(coating compns. contg. fluoropolymer particles and metal oxides for
automobile glass)

IT 7429-90-5, Aluminum, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(substrate; coating compns. contg. fluoropolymer particles and metal
oxides for automobile glass)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-
tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene
copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
(Technical or engineered material use); **PREP (Preparation)**; USES
(Uses)

(coating compns. contg. fluoropolymer particles and metal oxides for
automobile glass)

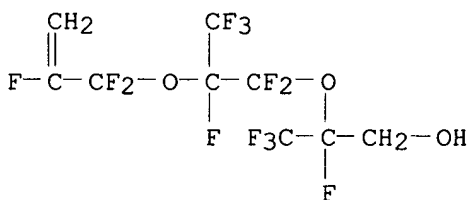
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
NAME)

CM 1

CRN 174082-85-0

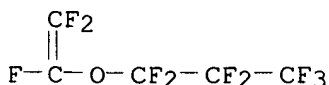
CMF C9 H5 F13 O3



CM 2

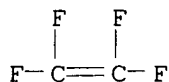
CRN 1623-05-8

CMF C5 F10 O



CM 3

CRN 116-14-3
CMF C2 F4



L43 ANSWER 29 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:661737 HCAPLUS

DN 129:291242

TI Soil-resistant composite materials

IN Araki, Takayuki; Tanaka, Yoshihito; Kumekawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisahito; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 32 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

ICS C08F214-18

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 55, 56, 57, 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10272745	A2	19981013	JP 1997-81520	19970331
PRAI	JP 1997-81520		19970331		

AB F-contg. polymers obtained by copolymn. of 0.05-30 mol% ethylenic monomers having OH, CO₂H, carboxylic acid salt, carboxylic acid ester, and/or epoxy groups and 70-99.95 mol% other F-contg. ethylenic monomers not having those functional groups are used in substrates of the title materials. Thus, an aq. dispersion of 97.7/1.2/1.1 (mol) perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-perfluoro(Pr vinyl ether)-tetrafluoroethylene copolymer was sprayed on degreased Al050P and SUS 304 sheets and baked to form primer layer, then PTFE topcoat was formed on the primer layer of each sheet, showing cross-cut adhesion 100/100 for both topcoats.

ST hydroxy fluoro polymer primer PTFE adhesion; soil resistant laminate fluoropolymer primer

IT Coating materials

(antisoiling; soil-resistant composite materials having fluoropolymer layers with good adhesion)

IT Polyimides, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(films; soil-resistant composite materials having fluoropolymer layers with good adhesion)

IT Coating materials

(powder; soil-resistant composite materials having fluoropolymer layers with good adhesion)

IT Adhesives

Glass substrates

Primers (paints)

(soil-resistant composite materials having fluoropolymer layers with good adhesion)

IT Fluoropolymers, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)
 (soil-resistant composite materials having fluoropolymer layers with
 good adhesion)

IT Cement (construction material)
 Ceramics
 Concrete
 Tiles
 (substrates; soil-resistant composite materials having fluoropolymer
 layers with good adhesion)

IT Polycarbonates, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (substrates; soil-resistant composite materials having fluoropolymer
 layers with good adhesion)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-
 tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxa-8-nonenol]-
 tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
 (Technical or engineered material use); **PREP (Preparation)**; USES
 (Uses)
 (soil-resistant composite materials having fluoropolymer layers with
 good adhesion)

IT 9002-84-0, Polyflon EK 4300CRN 25067-11-2, Neoflon FEP-ND 1
 212771-07-8, Neoflon PFA-ACX 31
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (soil-resistant composite materials having fluoropolymer layers with
 good adhesion)

IT 11109-50-5, SUS 304 37321-70-3, A1050P
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (substrates; soil-resistant composite materials having fluoropolymer
 layers with good adhesion)

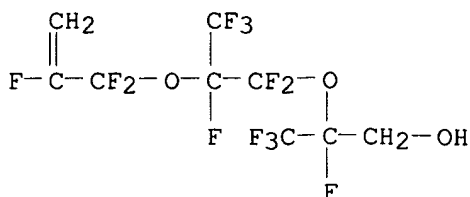
IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-
 tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxa-8-nonenol]-
 tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
 (Technical or engineered material use); **PREP (Preparation)**; USES
 (Uses)
 (soil-resistant composite materials having fluoropolymer layers with
 good adhesion)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
 3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
 NAME)

CM 1

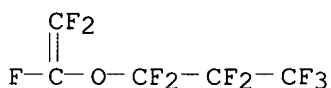
CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

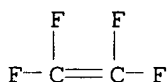
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 30 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:661736 HCAPLUS

DN 129:291241

TI Weather-resistant composite materials

IN Araki, Takayuki; Tanaka, Yoshihito; Kumekawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

ICS C08F216-04; C08F216-18; C08F220-04; C08F220-22; C08F224-00; C09D129-02; C09D129-10; C09D133-02; C09D133-04; C09D137-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 55, 56, 57, 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----		-----	-----	-----
PI	JP 10272744	A2	19981013	JP 1997-81519	19970331
PRAI	JP 1997-81519		19970331		

AB F-contg. polymers obtained by copolymn. of 0.05-30 mol% ethylenic monomers having OH, CO₂H, carboxylic acid salt, carboxylic acid ester, and/or epoxy groups and 70-99.95 mol% other F-contg. ethylenic monomers not having those functional groups are used in substrates of the title materials.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

Thus, an aq. dispersion of 97.7/1.2/1.1 (mol) perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-perfluoro(propyl vinyl ether)-tetrafluoroethylene copolymer was sprayed on degreased Al050P and SUS 304 sheets and baked to form primer layer, then PTFE topcoat was formed on the primer layer of each sheets, showing cross-cut adhesion 100/100 for both topcoats.

- ST hydroxy fluoro polymer primer PTFE adhesion; weather resistant laminate fluoropolymer primer
- IT Polyimides, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (films; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Coating materials
 (powder; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Cement (construction material)
 Ceramics
 Concrete
 Tiles
 (substrates; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Polycarbonates, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (substrates; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Adhesives
 Glass substrates
 Primers (paints)
 (weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT Coating materials
 (weather-resistant; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT 11109-50-5, SUS 304 37321-70-3, Al050P
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (substrates; weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-tetrafluoroethylene copolymer
 RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT 9002-84-0, Polyflon EK 4300CRN 25067-11-2, Neoflon FEP-ND 1 212771-07-8, Neoflon PFA-ACX 31
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (weather-resistant composite materials having fluoropolymer layers with good adhesion)
- IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-

tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-
tetrafluoroethylene copolymer

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
(Technical or engineered material use); **PREP (Preparation)**; USES
(Uses)

(weather-resistant composite materials having fluoropolymer layers with
good adhesion)

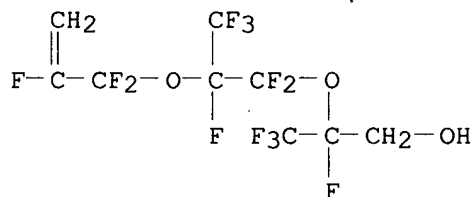
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
NAME)

CM 1

CRN 174082-85-0

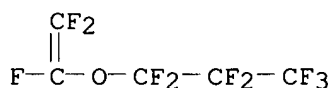
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

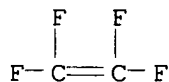
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 31 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:661727 HCAPLUS

DN 129:317659

TI Weather-resistant composites having coatings containing fluoropolymer fine
particles

IN Araki, Takayuki; Tanaka, Yoshihito; Kumekawa, Masahiro; Oka, Noritoshi;
Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B32B009-00
 ICS B32B027-30
 CC 42-7 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38, 55, 56, 57, 58
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10272719	A2	19981013	JP 1997-81518	19970331
PRAI	JP 1997-81518		19970331		

AB Title composites have transparent and heat-, water-, and oil-resistant coatings, which contain fluoropolymers comprising 0.05-50 mol% OH-, carboxy-, carboxylic acid group-, carboxy ester-, and/or epoxy-substituted F-contg. ethylenic monomers and 50-99.95 mol% other F-contg. ethylenic monomers and being dispersed in metal oxide matrix layers, on the surface of substrates. The substrates may be (non)metal, glass, concrete, cement, tiles, ceramics, and synthetic resins and the coatings show improved adhesion strength and surface hardness. Thus, 87.5 g silica sol prep'd. from (EtO)4Si 54, Me(EtO)3Si 46, EtOH 200, aq. HCl 50 g, and 44.8 g 22.1% 99.2:0.3:0.5 (mol) perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-3-nonenol)-perfluoro(Pr vinyl ether)-tetrafluoroethylene copolymer dispersion in water were mixed to give a coating, which was applied on pyrex glass plates, dried at room temp., and heated at 250.degree. for 60 min to give test pieces having haze 0.07, cross-cut adhesion 100/100, and water contact angle 110.degree..

ST weather resistant composite fluoropolymer dispersed coating; silica fluoropolymer dispersed antistaining coating; perfluoro nonenol tetrafluoroethylene copolymer particle dispersion; perfluoropropyl vinyl ether tetrafluoroethylene copolymer dispersion; transparent coating silica fluoropolymer dispersion; water oil resistant coating fluoropolymer dispersion; nontacky coating silica matrix fluoropolymer dispersion; glass concrete cement substrate antistaining coating; tile synthetic polymer substrate antistaining coating

IT Borosilicate glasses
 RL: MSC (Miscellaneous)
 (Pyrex, substrate; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Coating materials
 (abrasion-resistant; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Coating materials
 Coating materials
 (oil-resistant; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Cement (construction material)
 Ceramics
 Concrete
 Tiles
 (substrates; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Metals, miscellaneous
 Polymers, miscellaneous
 RL: MSC (Miscellaneous)
 (substrates; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Coating materials

(transparent; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Coating materials
(water-resistant; weather-resistant composites having coatings contg. fluoropolymer particles)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(weather-resistant composites having coatings contg. fluoropolymer particles)

IT Coating materials
(weather-resistant; weather-resistant composites having coatings contg. fluoropolymer particles)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(particles; weather-resistant composites having coatings contg. fluoropolymer particles)

IT 7429-90-5, Aluminum, miscellaneous
RL: MSC (Miscellaneous)
(substrates; weather-resistant composites having coatings contg. fluoropolymer particles)

IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(weather-resistant composites having coatings contg. fluoropolymer particles)

IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 13463-67-7, Titania, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(weather-resistant composites having coatings contg. fluoropolymer particles)

IT **192575-94-3P**, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(particles; weather-resistant composites having coatings contg. fluoropolymer particles)

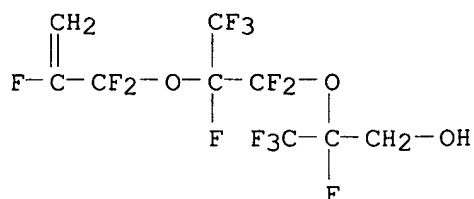
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

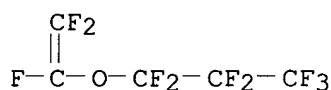
CRN 174082-85-0

CMF C9 H5 F13 O3



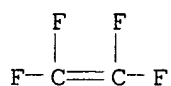
CM 2

CRN 1623-05-8
CMF C5 F10 O



CM 3

CRN 116-14-3
CMF C2 F4



L43 ANSWER 32 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1998:661726 HCAPLUS
 DN 129:332240
 TI Stain-resistant composites having coatings containing fluoropolymer fine particle dispersions
 IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo
 PA Daikin Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B32B009-00
 ICS B32B027-30
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38, 55, 56, 57
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10272718	A2	19981013	JP 1997-81517	19970331
PRAI	JP 1997-81517		19970331		
AB	Title composites have transparent, nontacky, and heat-, water-, and oil-resistant coatings, which contain fluoropolymers comprising 0.05-50 mol% OH-, carboxy-, carboxylic acid group-, carboxy ester-, and/or epoxy-substituted F-contg. ethylenic monomers and 50-99.95 mol% other				

F-contg. ethylenic monomers and being dispersed in metal oxide matrix layers, on the surface of substrates. The substrates may be (non)metal, glass, concrete, cement, tiles, ceramics, and synthetic resins and the coatings show improved adhesion strength and surface hardness. Thus, 87.5 g silica sol prep'd. from (EtO)₄Si 54, Me(EtO)₃Si 46, EtOH 200, and aq. HCl 50 g and 44.8 g 22.3% 97.3:0.9:1.8 (mol) perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-3-nonenol)-perfluoro(Pr vinyl ether)-tetrafluoroethylene copolymer dispersion in water were mixed to give a coating, which was applied on pyrex glass plates, dried at room temp., and baked at 250.degree. for 60 min to give test pieces having haze 0.07, cross-cut adhesion 100/100, and water contact angle 110.degree..

ST soiling resistant composite fluoropolymer dispersion coating; stain resistant composite fluoropolymer dispersion coating; silica fluoropolymer dispersion antisoiling coating; tetrafluoroethylene copolymer coating dispersion; perfluoropropyl vinyl ether copolymer dispersion; water oil resistant coating fluoropolymer dispersion; nontacky coating silica matrix fluoropolymer dispersion

IT Borosilicate glasses

RL: MSC (Miscellaneous)

(Pyrex, substrate; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Coating materials

(abrasion-resistant; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Coating materials

(antistaining; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Ceramics

(composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Coating materials

Coating materials

(oil-resistant; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Cement (construction material)

Concrete

Tiles

(substrates; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Polymers, miscellaneous

RL: MSC (Miscellaneous)

(substrates; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

IT Coating materials

(transparent; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)

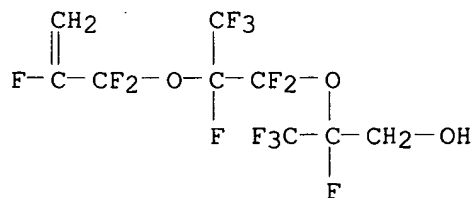
IT Coating materials

(water-resistant; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle

- dispersions)
- IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- IT 7631-86-9P, Silica, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- IT 1344-28-1, Alumina, uses 13463-67-7, Titania, uses
 RL: TEM (Technical or engineered material use); USES (Uses) (composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (particles; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- IT 7429-90-5, Aluminum, miscellaneous
 RL: MSC (Miscellaneous) (substrates; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxo-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (particles; composites having stain-resistant coatings comprising metal oxide matrix and functionalized fluoropolymer particle dispersions)
- RN 192575-94-3 HCAPLUS
- CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

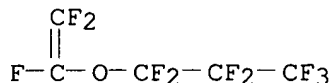
CM 1

CRN 174082-85-0
 CMF C9 H5 F13 O3



CM 2

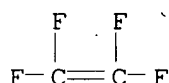
CRN 1623-05-8
 CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 33 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:650780 HCAPLUS

DN 129:317707

TI Nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance

IN Araki, Takayuki; Tanaka, Yoshihito; Kumekawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

ICS B32B009-00; C08F214-18

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 10264328	A2	19981006	JP 1997-77618	19970328
PRAI	JP 1997-77618		19970328		

AB Composites have coatings contg. F-contg. ethylene polymer fine particles dispersed in metal oxides. The polymer fine particles are obtained from 0.05-50 mol% .gtoreq.1 F-contg. ethylenically monomer having OH, CO₂H, carboxylic acid salts, carboxyesters, and/or epoxy groups and 50-99.95 mol% .gtoreq.1 F-contg. ethylenically monomer having no above functional groups. Thus, perfluoro(Pr vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonanol)-tetrafluoroethylene copolymer and SiO₂ were applied on a Pyrex glass substrate to give a test piece showing good transparency and abrasion and water resistance.

ST fluoropolymer metal oxide composite nonadherable; tetrafluoroethylene polymer metal oxide composite nonadherable; silica fluoropolymer composite nonadherable; titania fluoropolymer composite nonadherable; alumina fluoropolymer composite nonadherable; transparency fluoropolymer metal oxide coating; abrasion resistance fluoropolymer metal oxide coating; heat resistance fluoropolymer metal oxide coating; water resistance fluoropolymer metal oxide coating

IT Borosilicate glasses

RL: TEM (Technical or engineered material use); USES (Uses)

(Pyrex, substrates; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Coating materials
(abrasion-resistant; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Disperse systems
(aq.; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Coating materials
(heat-resistant; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Ceramics
Polymerization
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Oxides (inorganic), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Adhesion, physical
(prevention of; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Sols
(silica; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Coating materials
(transparent; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT Coating materials
(water-resistant; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT **192575-94-3P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT 88029-70-3P, Methyltriethoxysilane-tetraethoxysilane copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT 1344-28-1, Aluminum oxide, uses 7631-86-9, Silica, uses 13463-67-7, Titanium oxide, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT 37321-70-3, A 1050P
RL: TEM (Technical or engineered material use); USES (Uses)
(substrates; nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

IT **192575-94-3P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(nonadherable metal oxide-fluoropolymer composites with good abrasion, heat, and water resistance)

RN 192575-94-3 HCAPLUS

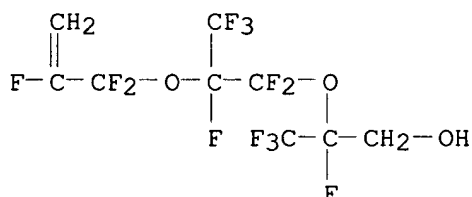
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-

trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

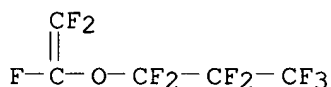
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

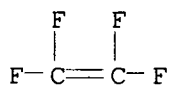
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 34 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:650779 HCAPLUS

DN 129:317357

TI Fluoropolymer composites with good adhesion to substrates for building materials

IN Araki, Takayuki; Tanaka, Yoshihito; Kumegawa, Masahiro; Oka, Noritoshi; Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-30

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10264326	A2	19981006	JP 1997-76348	19970327
PRAI	JP 1997-76348		19970327		
AB	Composites comprise F-contg. ethylene polymers obtained from 0.05-30 mol% .gtoreq.1 F-contg. ethylenically monomer having OH, CO ₂ H, carboxylic acid salts, carboxyesters, and/or epoxy groups and 70-99.95 mol% .gtoreq.1 F-contg. ethylenically monomer having no above functional groups. The composites are useful for walls, floors, windows, ceilings, doors, etc. Thus, perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonanol), perfluoro(Pr vinyl ether), and tetrafluoroethylene were polymd. to give a copolymer showing good adhesion to SUS 304 and A 1050P (Al).				
ST	fluoropolymer building material substrate adhesion improvement; fluoroethylene polymer building material adhesion improvement; steel adhesion fluoropolymer building material; aluminum adhesion fluoropolymer building material; glass adhesion fluoropolymer building material				
IT	Borosilicate glasses RL: TEM (Technical or engineered material use); USES (Uses) (Pyrex, substrates; fluoropolymer composites with good adhesion to substrates for building materials)				
IT	Electric lamps (covers; fluoropolymer composites with good adhesion to substrates for building materials)				
IT	Adhesion, physical Bathtubs Bolts Bridges Ceilings Cement (construction material) Ceramics Concrete Construction materials Doors Household furnishings Paving materials Polymerization Primers (paints) Railways Roofing Sound insulators Tiles Toilets Walls (construction) Wastewater Windows (fluoropolymer composites with good adhesion to substrates for building materials)				
IT	Fluoropolymers, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluoropolymer composites with good adhesion to substrates for building materials)				
IT	Polycarbonates, uses Stone, artificial RL: TEM (Technical or engineered material use); USES (Uses) (fluoropolymer composites with good adhesion to substrates for building materials)				
IT	Buildings (kitchens; fluoropolymer composites with good adhesion to substrates for building materials)				

IT Electricity
(parts; fluoropolymer composites with good adhesion to substrates for building materials)

IT Chemical industry
(plant; fluoropolymer composites with good adhesion to substrates for building materials)

IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(topcoats, Polyflon TFE-EK 4300CRN; fluoropolymer composites with good adhesion to substrates for building materials)

IT Coating materials
(topcoats; fluoropolymer composites with good adhesion to substrates for building materials)

IT **192575-94-3P**
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
(Technical or engineered material use); **PREP (Preparation)**; USES
(Uses)
(fluoropolymer composites with good adhesion to substrates for building materials)

IT 11109-50-5, SUS 304 12597-69-2, Steel, uses 37321-70-3, A 1050P
RL: TEM (Technical or engineered material use); USES (Uses)
(substrates; fluoropolymer composites with good adhesion to substrates for building materials)

IT 7732-18-5, Water, miscellaneous
RL: MSC (Miscellaneous)
(supply; fluoropolymer composites with good adhesion to substrates for building materials)

IT 9002-84-0, PTFE
RL: TEM (Technical or engineered material use); USES (Uses)
(topcoats, Polyflon TFE-EK 4300CRN; fluoropolymer composites with good adhesion to substrates for building materials)

IT 25067-11-2, Neoflon FEP ND 1 212771-07-8, Neoflon PFA-ACX 31
RL: TEM (Technical or engineered material use); USES (Uses)
(topcoats; fluoropolymer composites with good adhesion to substrates for building materials)

IT **192575-94-3P**
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM
(Technical or engineered material use); **PREP (Preparation)**; USES
(Uses)
(fluoropolymer composites with good adhesion to substrates for building materials)

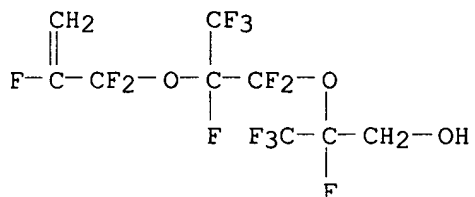
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

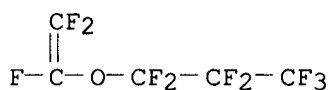
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 35 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:650761 HCAPLUS

DN 129:332236

TI Construction materials with antisoiling weather- and water-resistant coatings

IN Araki, Takayuki; Tanaka, Yoshihito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B009-00

ICS C03C017-00; C04B041-61; C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10264288	A2	19981006	JP 1997-72256	19970325
PRAI	JP 1997-72256		19970325		

AB The coatings comprise metal oxide coatings and polymer microparticles prepd. from (a) 0.05-50 mol% functional group-contg. monomers X2C:CX1RfY [Y = CH2OH, CO2H, carboxylate, carboxy ester, epoxy; X, X1 = H, F; Rf = C1-40 bivalent F-contg. (oxy)alkylene optionally contg. ether groups], and

- (b) 50-99.95 mol% unsatd. monomers bearing no above functional groups. Thus, 54 g Si(OEt)₄ and 46 g MeSi(OEt)₃ were heated at 50.degree. in EtOH in the presence of HCl to give a sol, 87.5 g of which was blended with 44.8 g (21.1% solids) aq. dispersion of 99.2:0.3:0.5 (mol%) tetrafluoroethylene-perfluoro(Pr vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol] copolymer particles to give a coating. Then, the coating was applied on a Pyrex glass plate, dried, and baked at 250.degree. to give a 6-.mu.m-thick coating film showing haze 0.07%, pencil hardness 6H, cross-cut adhesion test 100/100, water contact angle 110.degree., and 88.degree., initially, and after 3000-time rubbing with a cotton fabric under 1.5-kg/4-cm² load, resp.
- ST fluoropolymer silica construction material coating; fluoroethylene fluorohydromethyloxanonenol copolymer particle silica coating; antifouling coating fluoropolymer coating
- IT Borosilicate glasses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (Pyrex, supports; antisoiling weather- and water-resistant coatings for construction materials)
- IT Coating materials
 (antifouling; antisoiling weather- and water-resistant coatings for construction materials)
- IT Bathtubs
 Cement (construction material)
 Concrete
 Construction materials
 Toilets
 (antisoiling weather- and water-resistant coatings for construction materials)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)
- IT Polycarbonates, miscellaneous
 RL: MSC (Miscellaneous)
 (antisoiling weather- and water-resistant coatings for construction materials)
- IT Marble, artificial
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)
- IT Coating materials
 (antisoiling; antisoiling weather- and water-resistant coatings for construction materials)
- IT Coating materials
 (weather-resistant, antifouling; antisoiling weather- and water-resistant coatings for construction materials)
- IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol]-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)
- IT 7631-86-9P, Silica, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)

IT 88029-70-3P, Tetraethoxysilane-triethoxymethylsilane copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)

IT 1344-28-1, Aluminum oxide, uses 13463-67-7, Titanium oxide, uses
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)

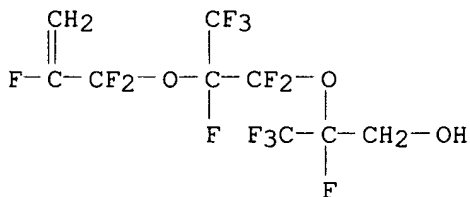
IT 37321-70-3, A 1050P
 RL: MSC (Miscellaneous)
 (substrates; antisoiling weather- and water-resistant coatings for construction materials)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl-3,6-dioxa-8-nonenol]-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling weather- and water-resistant coatings for construction materials)

RN 192575-94-3 HCAPLUS
 CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

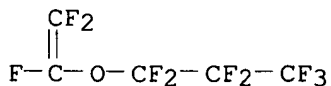
CM 1

CRN 174082-85-0
 CMF C9 H5 F13 O3



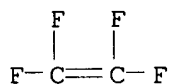
CM 2

CRN 1623-05-8
 CMF C5 F10 O



CM 3

CRN 116-14-3
CMF C2 F4



L43 ANSWER 36 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:612005 HCAPLUS

DN 129:232080

TI Nonstick and antisoiling cookwares and method for their manufacture

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi;
Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A47J036-02

ICS C08F214-20; C09D127-14; C08F220-00; C09D133-00; C08F216-04;
C09D129-02

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9838897	A1	19980911	WO 1998-JP901	19980305
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 980665	A1	20000223	EP 1998-905766	19980305
	R: DE, FR, GB, IT				
PRAI	JP 1997-53659		19970307		
	WO 1998-JP901		19980305		
AB	The cookwares are primed with a polymer of (a) 0.05-30 mol% of .gtoreq.1 fluorinated ethylenic monomer having .gtoreq.1 OH, COOH or its salt, ester and epoxy groups and (b) 70-99.95 mol% of .gtoreq.1 fluorinated ethylenic monomer free from the above functional groups for improving the adhesion of nonstick and antisoiling top coating. Thus, polymg. perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol) with perfluoro(Pr vinyl ether) and tetrafluoroethylene in a water gave a copolymer dispersion which was sprayed on a degreased Al sheet, dried at 90.degree. for 10 min, baked at 380.degree. for 20 min, and over-coated with a Polyflon EK 4300CRN (PTFE) layer as usual to give a coated Al sheet having coating cross-cut adhesion 100/100.				
ST	nonstick antisoiling fluoropolymer priming coating; cookware nonstick antisoiling fluoropolymer priming				
IT	Coating materials (dispersion; nonstick and antisoiling cookwares and method for manuf.)				
IT	Primers (paints) (nonstick and antisoiling cookwares and method for manuf.)				
IT	Fluoropolymers, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (over coating; nonstick and antisoiling cookwares and method for manuf.)				
IT	Coating materials				

(powder; nonstick and antisoiling cookwares and method for manuf.)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (primers/coatings; nonstick and antisoiling cookwares and method for manuf.)

IT 212771-28-3, Neoflon PFA-AF 0100
 RL: TEM (Technical or engineered material use); USES (Uses)
 (laminate; nonstick and antisoiling cookwares and method for manuf.)

IT 9002-84-0, Polyflon EK 4300CRN 25067-11-2, Neoflon FEP-ND-1
 212771-07-8, Neoflon PFA-ACX 31
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (over coating; nonstick and antisoiling cookwares and method for manuf.)

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (primers; nonstick and antisoiling cookwares and method for manuf.)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Asahi Chemical Industry Co Ltd; JP A051118 1993
- (2) Atochem; JP A0317109 1991
- (3) Atochem; EP A36944 1991
- (4) Atochem; US A5082911 1991
- (5) Atochem; US A5098972 1991
- (6) Daikin Industries Ltd; JP A09157578 1997
- (7) Daikin Industries Ltd; WO A97021776 1997
- (8) E I Du Pont de Nemours & Co; US A4351882 1982
- (9) E I Du Pont de Nemours & Co; EP A56280 1982
- (10) E I Du Pont de Nemours & Co; JP A57137365 1982
- (11) E I Du Pont de Nemours & Co; JP A04242620 1992
- (12) E I Du Pont de Nemours & Co; US A4252859 1992
- (13) Matsushita Electric Industrial Co Ltd; JP A08215055 1996
- (14) Matsushita Electric Industrial Co Ltd; JP A08322732 1996
- (15) Toyo Tanso Co Ltd; JP A08299191 1996

IT 192575-94-3P, Perfluoro(propyl vinyl ether)-perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxa-8-nonenol)-tetrafluoroethylene copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (primers; nonstick and antisoiling cookwares and method for manuf.)

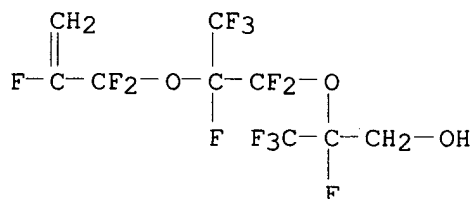
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

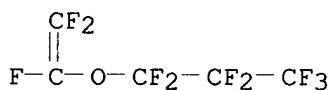
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

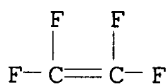
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 37 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:388563 HCAPLUS

DN 129:42384

TI Aqueous dispersions and waterproofing materials containing the same and articles coated therewith

IN Wada, Susumu; Imoto, Katsuhiko; Honda, Kayoko

PA Daikin Industries, Ltd., Japan; Wada, Susumu; Imoto, Katsuhiko; Honda, Kayoko

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08L027-12

ICS C08K005-54; C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823680	A1	19980604	WO 1997-JP4347	19971128
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 947554	A1	19991006	EP 1997-946062	19971128
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1239489	A	19991222	CN 1997-180191	19971128

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

	KR 2000057243	A	20000915	KR 1999-704615	19990525
	US 6288160	B1	20010911	US 1999-308844	19990721
PRAI	JP 1996-334520	A	19961128		
	WO 1997-JP4347	W	19971128		

AB The title dispersions easily applicable from one pack to attaining both decorative and satisfactory waterproofing effects on porous substrates comprise an organosilicon compd. R2(OSiR1R2)nOR2 and an aq. dispersion of a fluoro-resin, in 50 : 50 to 99 : 1 solids ratio, wherein R1 = C1-18 alkyl; R2 = C1-5 alkyl; n = 1-9. A hexyltriethoxysilane aq. emulsion was used, on concrete, with an aq. dispersion of Me methacrylate and cyclohexyl methacrylate copolymer in an aq. dispersion of vinylidene fluoride-tetrafluoroethylene-chlorotrifluoroethylene copolymer obtained in the presence of a reactive emulsifier.

ST polysiloxane fluoropolymer waterborne waterproofing coating; concrete waterproofing coating

IT Waterproofing agents

(aq. dispersions and waterproofing materials contg. the same and articles coated therewith)

IT Fluoropolymers, uses

Polysiloxanes, uses

Silsesquioxanes

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. dispersions and waterproofing materials contg. the same and articles coated therewith)

IT Coating materials

(water-resistant; aq. dispersions and waterproofing materials contg. the same and articles coated therewith)

IT 29254-45-3P, Ethyltriethoxysilane homopolymer 156327-81-0P, Octyltriethoxysilane homopolymer 156430-48-7P, Octyltriethoxysilane homopolymer, ladder sru 157445-38-0P 158808-35-6P, Hexyltriethoxysilane homopolymer 160929-49-7P, Ethyltriethoxysilane homopolymer, ladder sru 178437-63-3P, Cyclohexyl vinyl ether-polyethylene glycol allyl ether-ethyl vinyl ether-chlorotrifluoroethylene copolymer 208469-17-4P 208469-19-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. dispersions and waterproofing materials contg. the same and articles coated therewith)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Central Glass Co Ltd; JP 485369 A 1992
- (2) Daikin Industries Ltd; JP 08120211 A 1996 HCAPLUS
- (3) Daikin Industries Ltd; US 5712335 A 1996 HCAPLUS
- (4) Daikin Industries Ltd; EP 736583 A1 1996 HCAPLUS
- (5) E I Du Pont de Nemours & Co; GB 2074181 A 1981 HCAPLUS
- (6) E I Du Pont de Nemours & Co; JP 56166269 A 1981 HCAPLUS
- (7) Kaneka Corp; JP 08259892 A 1996 HCAPLUS
- (8) Osaka Organic Chemical Industry Ltd; JP 63150354 A 1988 HCAPLUS
- (9) Toa Gosei Co Ltd; JP 09286676 A 1997 HCAPLUS

IT 208469-17-4P 208469-19-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. dispersions and waterproofing materials contg. the same and articles coated therewith)

RN 208469-17-4 HCAPLUS

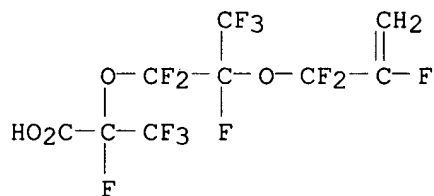
CN 2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with

chlorotrifluoroethene, 1,1-difluoroethene, methyl 2-methyl-2-propenoate, tetrafluoroethene and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propanoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

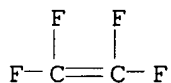
CMF C9 H3 F13 O4



CM 2

CRN 116-14-3

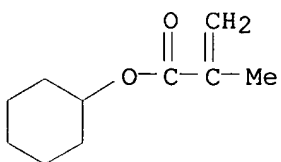
CMF C2 F4



CM 3

CRN 101-43-9

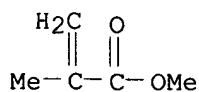
CMF C10 H16 O2



CM 4

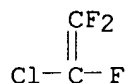
CRN 80-62-6

CMF C5 H8 O2



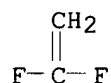
CM 5

CRN 79-38-9
CMF C2 C1 F3



CM 6

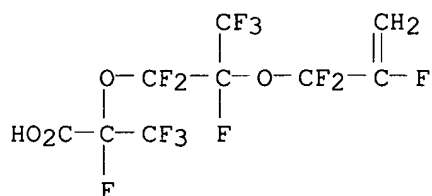
CRN 75-38-7
CMF C2 H2 F2



RN 208469-19-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with
chlorotrifluoroethene, 1,1-difluoroethene, ethyl 2-methyl-2-propenoate,
methyl 2-methyl-2-propenoate, tetrafluoroethene and 2,3,3,3-tetrafluoro-2-
[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-
propenyl)oxy]propoxy]propanoic acid, graft (9CI) (CA INDEX NAME)

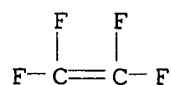
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



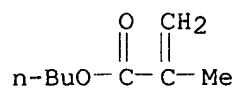
CM 2

CRN 116-14-3
CMF C2 F4



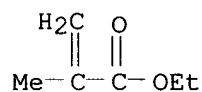
CM 3

CRN 97-88-1
CMF C8 H14 O2



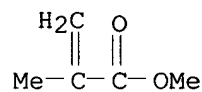
CM 4

CRN 97-63-2
CMF C6 H10 O2



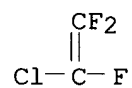
CM 5

CRN 80-62-6
CMF C5 H8 O2



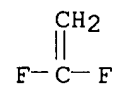
CM 6

CRN 79-38-9
CMF C2 Cl F3



CM 7

CRN 75-38-7
CMF C2 H2 F2



DN 128:76681
 TI Transparent, wear- and weather-resistant, and water-repellent coating compositions, metal oxide coatings, and manufacture thereof
 IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo
 PA Daikin Industries, Ltd.; Japan; Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo
 SO PCT Int. Appl., 180 pp.
 CODEN: PIXXD2

DT Patent
 LA Japanese
 IC ICM C09D127-12
 ICS C08L027-12; C08K003-22
 CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9748774	A1	19971224	WO 1997-JP2070	19970616
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 909800	A1	19990421	EP 1997-926258	19970616
	R: DE, FR, GB, IT				
	CN 1222178	A	19990707	CN 1997-195581	19970616
	KR 2000015989	A	20000325	KR 1998-709550	19981125
	US 6207236	B1	20010327	US 1998-202592	19981217
PRAI	JP 1996-157978	A	19960619		
	WO 1997-JP2070	W	19970616		

AB The title compns comprise (A) a fluorinated ethylenic polymer having functional groups, which is obtained by copolymg. fluorinated ethylenic monomers having at least one functional group selected from hydroxyl, carboxyl, carboxylic salts, carboxylic esters and epoxy, (B-1) a metal oxide sol, and (C) a solvent. A compn. from a silica sol (from tetraethoxysilane and triethoxymethylsilane), CH₂:CFCF₂OCF(CF₃)CF₂OCF(CF₂)CH₂OH-CF₂CF₂CF₂OCF:CF₂ copolymer dispersion was coated on Pyrex glass, baked at 250.degree. for 60 min.

ST fluoropolymer silica coating wear weather resistant; transparent water repellent fluoropolymer silica coating

IT Coating materials
 (abrasion-resistant; transparent, wear- and weather-resistant, and water-repellent coating compns., metal oxide coatings, and manuf. thereof)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (transparent, wear- and weather-resistant, and water-repellent coating compns., metal oxide coatings, and manuf. thereof)

IT Coating materials
 (transparent; transparent, wear- and weather-resistant, and water-repellent coating compns., metal oxide coatings, and manuf. thereof)

IT Coating materials
 (water-resistant; transparent, wear- and weather-resistant, and water-repellent coating compns., metal oxide coatings, and manuf. thereof)

IT Coating materials
 (weather-resistant; transparent, wear- and weather-resistant, and water-repellent coating compns., metal oxide coatings, and manuf. thereof)

IT 192575-94-3P

RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); **PREP**
(Preparation); USES (Uses)
 (transparent, wear- and weather-resistant, and water-repellent coating
 compns., metal oxide coatings, and manuf. thereof)

IT 7631-86-9, Silica, uses

RL: MOA (Modifier or additive use); USES (Uses)
 (transparent, wear- and weather-resistant, and water-repellent coating
 compns., metal oxide coatings, and manuf. thereof)

IT 192575-94-3P

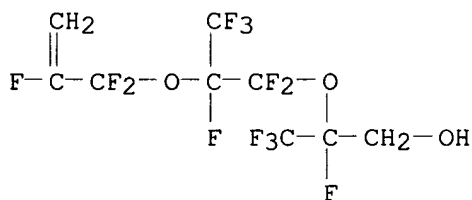
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); **PREP**
(Preparation); USES (Uses)
 (transparent, wear- and weather-resistant, and water-repellent coating
 compns., metal oxide coatings, and manuf. thereof)

RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
 3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
 NAME)

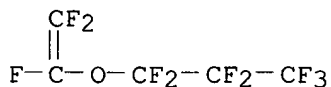
CM 1

CRN 174082-85-0
 CMF C9 H5 F13 O3



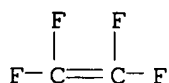
CM 2

CRN 1623-05-8
 CMF C5 F10 O



CM 3

CRN 116-14-3
 CMF C2 F4



L43 ANSWER 39 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:516411 HCAPLUS

DN 127:122722

TI Fluoroadhesive with good heat, chem., weather resistance and insulating properties and adhesive film and laminate prepared therefrom

IN Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan; Araki, Takayuki; Tanaka, Yoshito; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C09J127-12

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9721779	A1	19970619	WO 1996-JP3576	19961205
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 09157616	A2	19970617	JP 1995-320573	19951208
	EP 866108	A1	19980923	EP 1996-941189	19961205
	EP 866108	B1	20020626		
	R: DE, FR, GB, IT				
	CN 1203620	A	19981230	CN 1996-198852	19961205
	EP 1110713	A2	20010627	EP 2001-100034	19961205
	EP 1110713	A3	20010816		
	R: DE, FR, GB, IT				
PRAI	JP 1995-320573	A	19951208		
	EP 1996-941189	A3	19961205		
	WO 1996-JP3576	W	19961205		
AB	The title adhesives showing strong adhesion directly to substrates such as metal or glass comprise a hydroxylated fluoroethylenic polymer prep. by copolyng. 0.05-30 mol% hydroxylated fluorethylene monomer(s) with 70-99.95 mol% fluorethylenic comonomer(s). A 97:2:1 (molar) copolymer was prep. from tetrafluoroethylene, perfluoro(Pr vinyl ether), and CH ₂ :CFCF ₂ OCF(CF ₃)CF ₂ OCF(CF ₃)CH ₂ OH and showed max. and min. peel strength from chromated aluminum 15.4 and 7.2 kg/25 mm, resp.				
ST	fluoropolymer adhesive metal glass; laminate fluoropolymer adhesive				
IT	Adhesives				
	(fluoroadhesive with good heat, chem., weather resistance and insulating properties and adhesive film and laminate prep. therefrom)				
IT	Fluoropolymers, uses				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(fluoroadhesive with good heat, chem., weather resistance and insulating properties and adhesive film and laminate prep. therefrom)				
IT	Borosilicate glasses				
	RL: NUU (Other use, unclassified); USES (Uses)				
	(fluoroadhesive with good heat, chem., weather resistance and insulating properties and adhesive film and laminate prep. therefrom)				
IT	192575-94-3P 192575-95-4DP, hydrolyzed				
	192575-95-4P				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(fluoroadhesive with good heat, chem., weather resistance and insulating properties and adhesive film and laminate prep. therefrom)				

IT 7429-90-5, Aluminum, uses 12597-69-2, Steel, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (fluoroadhesive with good heat, chem., weather resistance and
 insulating properties and adhesive film and laminate prepd. therefrom)

IT 192575-94-3P 192575-95-4DP, hydrolyzed
 192575-95-4P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (fluoroadhesive with good heat, chem., weather resistance and
 insulating properties and adhesive film and laminate prepd. therefrom)

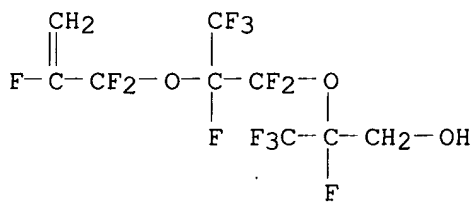
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-
 3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX
 NAME)

CM 1

CRN 174082-85-0

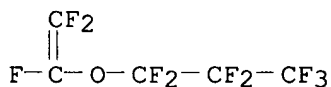
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

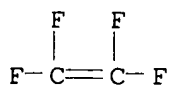
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



RN 192575-95-4 HCAPLUS

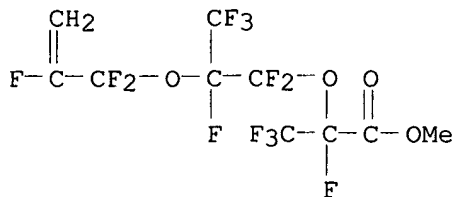
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with
 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and

tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-83-8

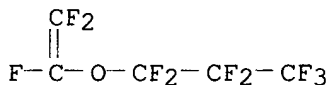
CMF C10 H5 F13 O4



CM 2

CRN 1623-05-8

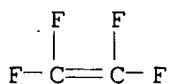
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



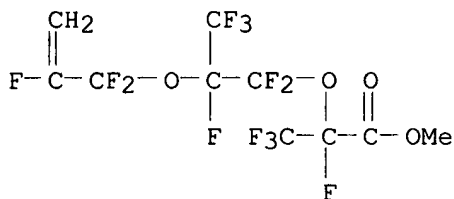
RN 192575-95-4 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-83-8

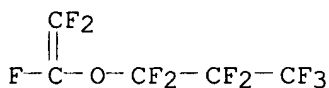
CMF C10 H5 F13 O4



CM 2

CRN 1623-05-8

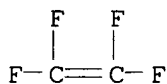
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 40 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:511907 HCAPLUS

DN 127:123061

TI Fluorinated material for coating composition and method of coating using the same

IN Araki, Takayuki; Sanemasa, Hisato; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan; Araki, Takayuki; Sanemasa, Hisato; Kumegawa, Masahiro; Oka, Noritoshi; Shimizu, Tetsuo

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C09D127-12

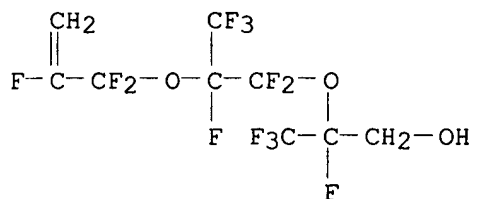
CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9721776	A1	19970619	WO 1996-JP3575	19961205
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 09157578	A2	19970617	JP 1995-320572	19951208
	EP 866107	A1	19980923	EP 1996-941188	19961205
	R: DE, FR, GB, IT				
	CN 1203618	A	19981230	CN 1996-198853	19961205

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

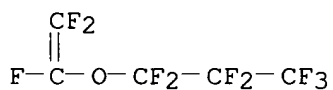
	JP 2001316614	A2	20011116	JP 2001-147967	19961205
	JP 3263845	B2	20020311	JP 1997-521919	19961205
	US 6069215	A	20000530	US 1998-77939	19980605
PRAI	JP 1995-320572	A	19951208		
	JP 1997-521919	A3	19961205		
	WO 1996-JP3575	W	19961205		
AB	A fluorinated material for coating compns. which retains the excellent properties inherent in fluoropolymers, such as heat resistance, chem. resistance, nontackiness, and frictionless properties, and directly and tenaciously adheres to metallic, glass, and other substrates. The material comprises a functional ethylenic fluoropolymer obtained by copolyng. (a-1) 0.05-30 mol% at least one ethylenic fluoromonomer having at least one functional group selected among hydroxy, carboxy, carboxylate, carboxylic ester, and epoxy groups with (b-1) 70-99.95 mol% at least one ethylenic fluoromonomer not having any of the functional groups, e.g., water-thinned 97.7:1.2:1.1 (molar) copolymer of tetrafluoroethylene, perfluoro(Pr vinyl ether) and CH ₂ :CFCF ₂ OCF(CF ₃)CF ₂ OCF(CF ₃)CH ₂ OH on Al.				
ST	fluoropolymer coating				
IT	Coating materials (fluorinated material for coating compn. and method of coating using the same directly on substrates)				
IT	Fluoropolymers, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorinated material for coating compn. and method of coating using the same directly on substrates)				
IT	192575-94-3P 192575-95-4DP, hydrolyzed 192575-95-4P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorinated material for coating compn. and method of coating using the same directly on substrates)				
IT	9002-84-0, PTFE 25067-11-2, FEP 102819-88-5, Neoflon PFA RL: TEM (Technical or engineered material use); USES (Uses) (fluorinated material for coating compn. and method of coating using the same directly on substrates)				
IT	192575-94-3P 192575-95-4DP, hydrolyzed 192575-95-4P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorinated material for coating compn. and method of coating using the same directly on substrates)				
RN	192575-94-3 HCAPLUS				
CN	1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)				
CM	1				
CRN	174082-85-0				
CMF	C9 H5 F13 O3				



CM 2

CRN 1623-05-8

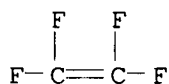
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



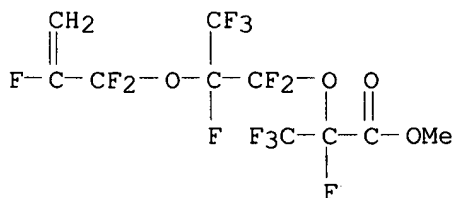
RN 192575-95-4 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-83-8

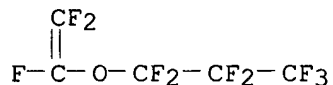
CMF C10 H5 F13 O4



CM 2

CRN 1623-05-8

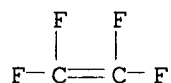
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



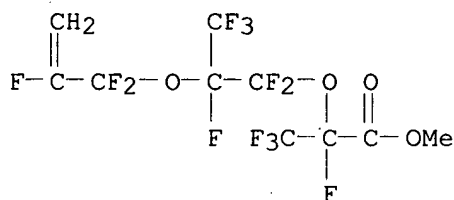
RN 192575-95-4 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-83-8

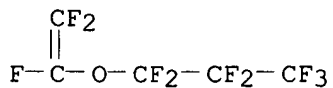
CMF C10 H5 F13 O4



CM 2

CRN 1623-05-8

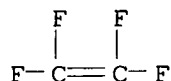
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 41 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:456646 HCAPLUS

DN 127:82304

TI Fluorine-containing copolymer aqueous dispersions crosslinkable at ambient temperature and their use in aqueous coatings and coated products

IN Tsuda, Nobuhiko; Iwakiri, Ryuji; Imoto, Katsuhiko; Yonei, Yasufumi; Nagato, Masaru

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L051-06

ICS C08F002-44; C08F259-08; C08K005-24; C09D127-12; C09D151-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09165490	A2	19970624	JP 1995-329082	19951218
PRAI	JP 1995-329082		19951218		

AB The compns. contain (A) F-contg. copolymer aq. dispersions (av. size of copolymer particles 0.05-3 .mu.m) obtained by emulsion polymg. 20-99 parts monomer mixts. contg. (b) C1-18 alkyl acrylates and/or (c) C1-18 alkyl methacrylates and (d) ethylenic unsatd. monomers copolymerizable with the esters (contents of active carbonyl-contg. ethylenic unsatd. monomers 0.1-20% of the monomer mixts.) in aq. media in the presence of (a) 100 parts F-contg. polymer particles, and (B) .gtoreq.2 hydrazine residue-contg. hydrazines at 0.02-1 molequiv of the active carbonyl groups. A monomer mixt. of 74/14/12 (mol%) vinylidene fluoride, tetrafluoroethylene, and chlorotrifluoroethylene was added to a mixt. of ammonium perfluorooctanoate and CH₂:CFCF₂OCF(CF₃)CF₂OCF(CF₃)CO₂H and treated with AcOEt and ammonium persulfate to give an aq dispersion (solids content 40%, av. particle size 0.12 .mu.m). The aq. dispersion (70 g) was treated with an emulsion contg. 10 g Me methacrylate and 1.2 g acetoacetoxyethyl methacrylate (I) in the presence of ammonium persulfate, the mixt. was neutralized, and mixed with adipic acid dihydrazide at 1.0 molequiv of the active carbonyl groups of I to give an aq. dispersion (solids content 47%, av. particle size 0.16 .mu.m, and min. film-forming temp. 38.degree.). A coating compn. contg. the aq. dispersion formed a film showing good gloss, pencil hardness H, good bonding with a substrate, staining resistance, boiling water resistance, solvent resistance, and weather resistance.

ST acrylic polymer emulsion polymn fluoropolymer hydrazine; coating acrylic polymer fluoropolymer hydrazine crosslinking; seed polymn acrylic polymer fluoropolymer coating

IT Polymerization

(emulsion; low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)

IT Coating materials

(heat-resistant; low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)

IT Fluoropolymers, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)

- IT Polymerization
(seed; low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)
- IT Coating materials
Coating materials
(solvent-resistant; low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)
- IT Coating materials
(water-resistant; low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)
- IT 27901-88-8P, Acetoacetoxyethyl methacrylate-methyl methacrylate copolymer 28062-52-4P, Acrolein-methyl methacrylate copolymer 70670-78-9P, Chlorotrifluoroethylene-cyclohexyl vinyl ether-ethyl vinyl ether copolymer 174083-02-4P 184435-90-3P 184435-91-4P 184435-92-5P 191858-92-1P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)

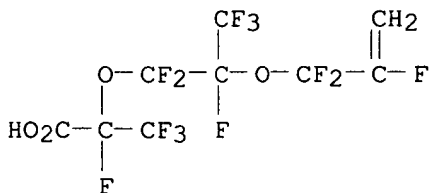
- IT 1071-93-8
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)
- IT 174083-02-4P 184435-90-3P 184435-91-4P 184435-92-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low-temp.-curable fluorine-contg. copolymer aq. dispersions contg. hydrazines and their aq. coating compns.)

- RN 174083-02-4 HCAPLUS
- CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

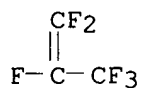
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



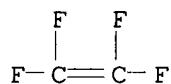
CM 2

CRN 116-15-4
CMF C3 F6



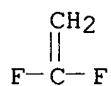
CM 3

CRN 116-14-3
CMF C2 F4



CM 4

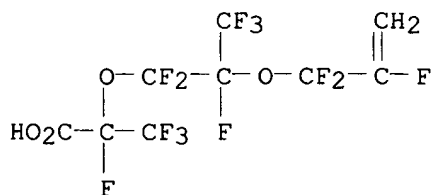
CRN 75-38-7
CMF C2 H2 F2



RN 184435-90-3 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

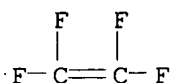
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



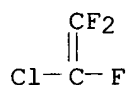
CM 2

CRN 116-14-3
CMF C2 F4



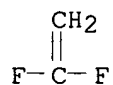
CM 3

CRN 79-38-9
CMF C2 C1 F3



CM 4

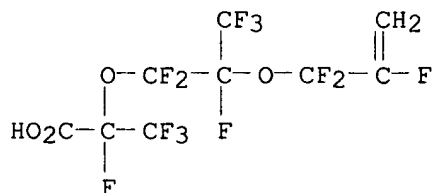
CRN 75-38-7
CMF C2 H2 F2



RN 184435-91-4 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene and 1,1,2,3,3,3-hexafluoro-1-propene (9CI) (CA INDEX NAME)

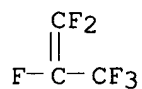
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



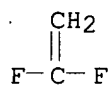
CM 2

CRN 116-15-4
CMF C3 F6



CM 3

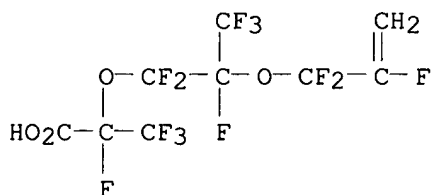
CRN 75-38-7
CMF C2 H2 F2



RN 184435-92-5 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene and 1,1-difluoroethene (9CI) (CA INDEX NAME)

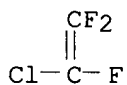
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



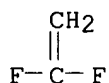
CM 2

CRN 79-38-9
CMF C2 Cl F3



CM 3

CRN 75-38-7
CMF C2 H2 F2



L43 ANSWER 42 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:390674 HCAPLUS

DN 127:5757

TI Fluoropolmer compositions and moldings therefrom with good mechanical properties and abrasion resistance and manufacture thereof

IN Araki, Takayuki; Kumegawa, Masahiro; Miyamori, Tsuyoshi; Kato, Masami; Komori, Masaji; Kato, Taketo; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan; Araki, Takayuki; Kumegawa, Masahiro; Miyamori, Tsuyoshi; Kato, Masami; Komori, Masaji; Kato, Taketo; Shimizu, Tetsuo

SO PCT Int. Appl., 54 99.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08L027-12

ICS C08K003-00; C08K007-00; C08J007-00

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9715623	A1	19970501	WO 1996-JP3135	19961025
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 857756	A1	19980812	EP 1996-935458	19961025
	R: DE, FR, GB, IT				
	CN 1200751	A	19981202	CN 1996-197855	19961025
	US 6225399	B1	20010501	US 1998-65032	19980427
	US 2001021744	A1	20010913	US 2001-797693	20010305
	US 6479578	B2	20021112		
PRAI	JP 1995-280963	A	19951027		
	WO 1996-JP3135	W	19961025		
	US 1998-65032	A3	19980427		
AB	The title compns. with good retention of the excellent heat resistance, chem. resistance, surface properties (nontackiness and low abrasion), elec. insulating properties and other properties inherent in fluoropolymers comprise 1-99.5% a fluoroethylenic copolymer of 0,05-30 mol% .gtoreq.1 fluoromonomer having any one of hydroxyl, carboxyl, carboxylic salt, carboxylic ester, and epoxy groups; and 0.5-99% an inorg. filler or an insolubilized org. filler. A 97.0:2.0:1.0 (molar) tetrafluoroethylene-perfluoro(Pr vinyl ether)-CH2:CFCF2OCF(CF3)CF2OCF(CF3)CH2OH copolymer was prepd., compounded with carbon fiber in 80:20 ratio, extrusion-pelletized 350-370.degree., and injection-molded at 360-390.degree. cylinder temp. and 200.degree. mold temp. to obtain a specimen with tensile strength 377 kg/cm2, tensile modulus 23,500 kg/cm2, elongation 5.1%, bending strength 616 kg/cm2, bending modulus 35,200 kg/cm2, heat-distortion temp. 203.7.degree., and limiting PV value 735 kg-m/cm2-min.				
ST	fluoropolymer filled molding strength abrasion resistance				
IT	Synthetic fibers				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(aluminum borate; fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)				
IT	Crystal whiskers				

(fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)

IT Carbon fibers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)

IT 11121-16-7, Alborex Y
 RL: MOA (Modifier or additive use); USES (Uses)
 (fiber; fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)

IT 190191-63-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)

IT 190191-63-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoropolmer compns. and moldings therefrom with good mech. properties and abrasion resistance and manuf. thereof)

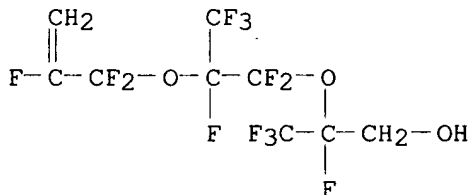
RN 190191-63-0 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1-(ethenyloxy)-1,1,2,2,3,3,3-heptafluoropropane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

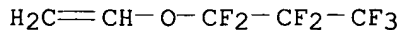
CMF C9 H5 F13 O3



CM 2

CRN 6996-01-6

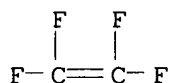
CMF C5 H3 F7 O



CM 3

CRN 116-14-3

CMF C2 F4



L43 ANSWER 43 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:758605 HCAPLUS

DN 126:32185

TI Aqueous dispersions of fluorine-containing polymers, water-thinned coatings, and coated products

IN Tsuda, Nobuhiko; Iwakiri, Ryuji; Yonei, Yasushi; Imoto, Katsuhiko

PA Daikin Ind Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L051-06

ICS C08F002-44; C08F259-08; C09D005-02; C09D151-06

ICA C08L027-12; C09D127-12

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08259773	A2	19961008	JP 1995-63193	19950322
	JP 3303900	B2	20020722		
PRAI	JP 1995-63193		19950322		

AB Aq. dispersions contg. polymer particles with av. particle size 0.05-3 .mu.m are manufd. by emulsion polymn. of 20-100 parts of a monomer mixt. contg. C1-18 alkyl (meth)acrylates and other ethylenic monomers including 0.5-45% cyclohexyl-contg. monomers in the presence of 100 parts fluoropolymer particles in an aq. medium. The dispersions are useful in water-thinned transparent coatings for buildings and other products. Thus, 90% Me methacrylate and 10% cyclohexyl methacrylate were polymd. in the presence of a copolymer of CH₂:CFCF₂OCF(CF₃)CF₂OCF(CF₃)CO₂H, vinylidene fluoride, tetrafluoroethylene, and chlorotrifluoroethylene and applied to give a film showing high transparency, elongation 300%, and modulus 1.2.

ST fluoropolymer acrylic polymer aq dispersion; water thinned coating
fluoropolymer acrylic polymer

IT Fluoropolymers, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. dispersions of fluorine-contg. polymers and acrylic polymers, water-thinned coatings, and coated products)

IT Polymerization

(emulsion; prepn. of aq. dispersions of fluorine-contg. polymers and acrylic polymers)

IT Coating materials

(water-resistant; aq. dispersions of fluorine-contg. polymers and acrylic polymers, water-thinned coatings, and coated products)

IT Coating materials

(water-thinned, transparent; aq. dispersions of fluorine-contg. polymers and acrylic polymers, water-thinned coatings, and coated products)

IT Coating materials

(weather-resistant; aq. dispersions of fluorine-contg. polymers and acrylic polymers, water-thinned coatings, and coated products)

IT 27517-36-8P, Cyclohexyl methacrylate-methyl methacrylate copolymer

28502-39-8P, Cyclohexyl acrylate-methyl methacrylate copolymer
 86286-17-1P, Cyclohexyl methacrylate-ethyl acrylate-methyl methacrylate
 copolymer 184435-93-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (aq. dispersions of fluorine-contg. polymers and acrylic polymers,
 water-thinned coatings, and coated products)

IT 174083-02-4P 178437-63-3P 184435-90-3P
 184435-91-4P 184435-92-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)

(seed particles; aq. dispersions of fluorine-contg. polymers and
 acrylic polymers, water-thinned coatings, and coated products)

IT 174083-02-4P 184435-90-3P 184435-91-4P
 184435-92-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)

(seed particles; aq. dispersions of fluorine-contg. polymers and
 acrylic polymers, water-thinned coatings, and coated products)

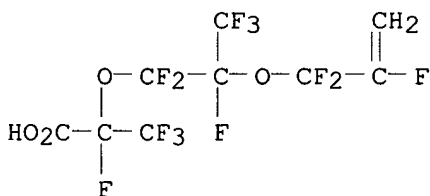
RN 174083-02-4 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-
 trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene,
 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX
 NAME)

CM 1

CRN 174082-84-9

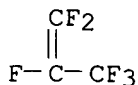
CMF C9 H3 F13 O4



CM 2

CRN 116-15-4

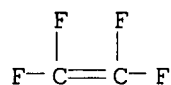
CMF C3 F6



CM 3

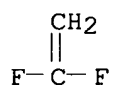
CRN 116-14-3

CMF C2 F4



CM 4

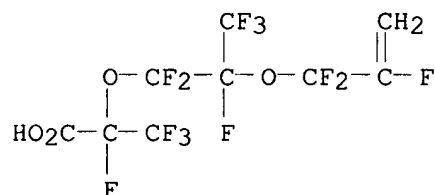
CRN 75-38-7
CMF C2 H2 F2



RN 184435-90-3 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

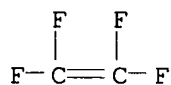
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



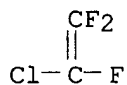
CM 2

CRN 116-14-3
CMF C2 F4



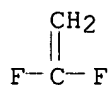
CM 3

CRN 79-38-9
CMF C2 Cl F3



CM 4

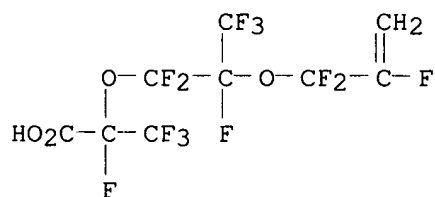
CRN 75-38-7
CMF C2 H2 F2



RN 184435-91-4 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene and 1,1,2,3,3,3-hexafluoro-1-propene (9CI) (CA INDEX NAME)

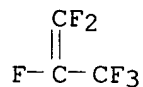
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



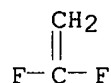
CM 2

CRN 116-15-4
CMF C3 F6



CM 3

CRN 75-38-7
CMF C2 H2 F2



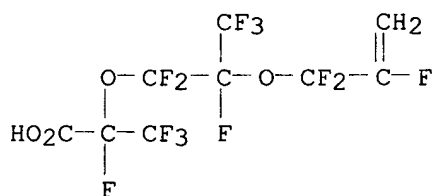
RN 184435-92-5 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene and 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

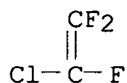
CMF C9 H3 F13 O4



CM 2

CRN 79-38-9

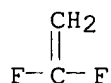
CMF C2 Cl F3



CM 3

CRN 75-38-7

CMF C2 H2 F2



L43 ANSWER 44 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:137691 HCAPLUS

DN 124:177249

TI Fluoroolefin, fluoropolymer, and thermoplastic resin composition containing the polymer with excellent thermal, chemical and mechanical properties

IN Araki, Takayuki; Shimizu, Tetsuo; Yamato, Takafumi; Kumegawa, Masahiro; Yamamoto, Yoshihisa

PA Daikin Industries, Ltd., Japan

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

SO PCT Int. Appl., 186 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F214-18

ICS C08F220-04; C08F220-22; C08F216-14; C08F216-04; C08F210-00;
 C08L027-12; C08L101-00; C08L067-00; C08L069-00; C08L077-00;
 C08L081-04; C07C057-52; C07C069-65; C07C033-42; C07C43 -178;
 C07D303-08; C07D303-22

CC 35-4 (Chemistry of Synthetic High Polymers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9533782	A1	19951214	WO 1995-JP1103	19950605
	W: AU, CA, CN, JP, KR, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9525764	A1	19960104	AU 1995-25764	19950605
	AU 686814	B2	19980212		
	CN 1129454	A	19960821	CN 1995-190538	19950605
	CN 1061663	B	20010207		
	EP 728776	A1	19960828	EP 1995-920259	19950605
	EP 728776	B1	19981007		
	R: BE, DE, FR, GB, IT, NL				
	RU 2142449	C1	19991210	RU 1996-107876	19950605
	JP 3291733	B2	20020610	JP 1996-500669	19950605
	US 5670593	A	19970923	US 1996-596315	19960209
	US 5986150	A	19991116	US 1997-856594	19970515
	CN 1280978	A	20010124	CN 2000-108561	20000516
PRAI	JP 1994-153020	A	19940609		
	WO 1995-JP1103	W	19950605		
AB	The title compds. and compns. contain a function-contg. fluorolefin represented by the following general formula: CH ₂ :CFCF ₂ Rf ₆ (CH ₂) _k X ₂ (X ₂ = CH ₂ OH, glycidyl, glycidyloxymethyl; Rf ₆ = C ₁ -C ₄₀ fluoroalkyl, -ORf ₇ ; Rf ₇ = C ₁ -C ₄₀ fluoroalkylene or C ₃ -C ₅₀ fluoroalkyl ether; k = 0-6); a function-contg. fluoropolymer prepd. from the above olefin and so well compatible with various heat-resistant thermoplastic resins as to form a homogeneous dispersion state; and a thermoplastic resin compn. comprising the above fluoropolymer and a heat-resistant thermoplastic resin such as an arom. polyester. Perfluoro[1,1,9,9-tetrahydro-2,5-bis(trifluoromethyl)-3,6-dioxo-8-nonenol] was prepd. and copolymd. with tetrafluoroethylene. The copolymers prepd. were useful as property modifiers for other polymers including polyamides, polyester liq. crystals, polythiophenylenes, etc.				
ST	fluoropolymer manuf polymer modifier; fluororubber polymer modifier; polyamide modifier fluoropolymer; polyester liq crystal fluoropolymer modifier; polythiophenylene fluoropolymer modifier				
IT	Emulsifying agents				
	Liquid crystals, polymeric				
	(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)				
IT	Fluoropolymers				
	Plastics				
	Polyamides, uses				
	Polycarbonates, uses				
	Polyesters, uses				
	Polythiophenylenes				
	RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				
	(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)				
IT	Rubber, synthetic				

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 174082-92-9P 174082-93-0P 174082-94-1P
174082-95-2P 174082-96-3P 174082-97-4P
174082-98-5P 174082-99-6P 174083-00-2P
174083-01-3P 174083-02-4P 174083-03-5P
174083-04-6P 174268-12-3P 174268-13-4P
174268-14-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 99497-42-4P, 2,2-Difluoro-3-iodopropionyl fluoride 106394-03-0P
106394-05-2P 174082-78-1P 174082-79-2P 174082-80-5P 174082-81-6P
174082-82-7P 174082-83-8P 174082-84-9P 174082-85-0P 174082-86-1P
174082-87-2P 174082-88-3P 174082-89-4P 174082-90-7P 174082-91-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 24937-16-4, Nylon 12 24937-79-9, Poly(vinylidene fluoride) 25038-71-5,
Ethylene-tetrafluoroethylene copolymer 25038-74-8 25212-74-2,
Poly(thio-1,4-phenylene) 81843-52-9, Vectra A950 111214-17-6
123897-70-1, Novaccurate E310 127609-88-5, Panlite L-1225WP
150825-75-5, Neoflon PFA AP-201 156511-12-5, Neoflon EP 610

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 106-89-8, reactions 428-59-1, Perfluoropropylene oxide 765-63-9,
2,2,3,3-Tetrafluorooxetane 7681-82-5, Sodium iodide, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 25190-89-0, Hexafluoropropene-tetrafluoroethylene-vinylidene fluoride copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(rubber; fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

IT 174082-92-9P 174082-93-0P 174082-94-1P
174082-95-2P 174082-96-3P 174082-97-4P
174082-98-5P 174083-00-2P 174083-01-3P
174083-02-4P 174083-03-5P 174083-04-6P
174268-12-3P 174268-13-4P 174268-14-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

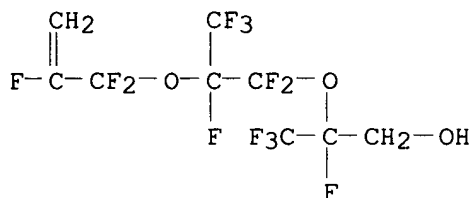
(fluoroolefin, fluoropolymer, and thermoplastic resin compn. contg. the polymer with excellent thermal, chem. and mech. properties)

RN 174082-92-9 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with tetrafluoroethene (9CI)
(CA INDEX NAME)

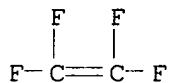
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

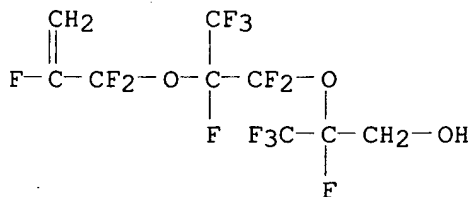
CRN 116-14-3
CMF C2 F4



RN 174082-93-0 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
(CA INDEX NAME)

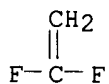
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 75-38-7
CMF C2 H2 F2



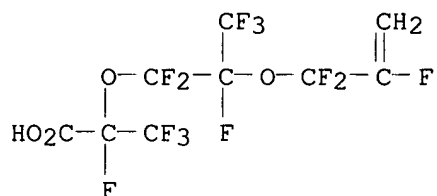
RN 174082-94-1 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-

trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
(CA INDEX NAME)

CM 1

CRN 174082-84-9

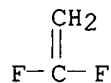
CMF C9 H3 F13 O4



CM 2

CRN 75-38-7

CMF C2 H2 F2



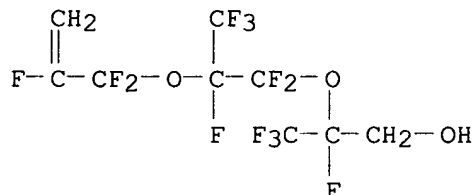
RN 174082-95-2 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

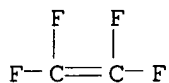
CMF C9 H5 F13 O3



CM 2

CRN 116-14-3

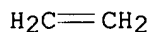
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



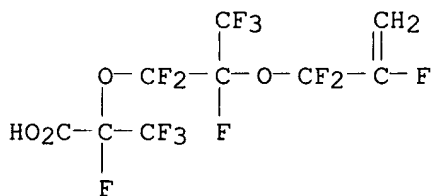
RN 174082-96-3 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

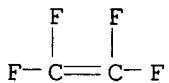
CMF C9 H3 F13 O4



CM 2

CRN 116-14-3

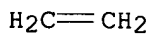
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



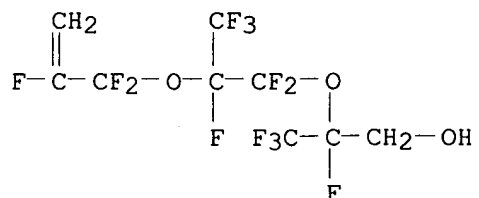
RN 174082-97-4 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-

trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

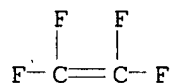
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



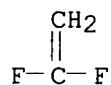
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

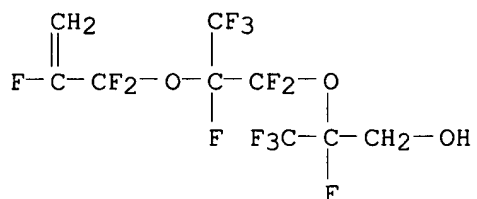
CRN 75-38-7
CMF C2 H2 F2



RN 174082-98-5 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

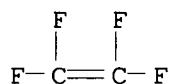
CRN 174082-85-0
CMF C9 H5 F13 O3



CM 2

CRN 116-14-3

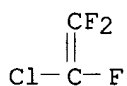
CMF C2 F4



CM 3

CRN 79-38-9

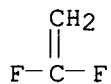
CMF C2 C1 F3



CM 4

CRN 75-38-7

CMF C2 H2 F2



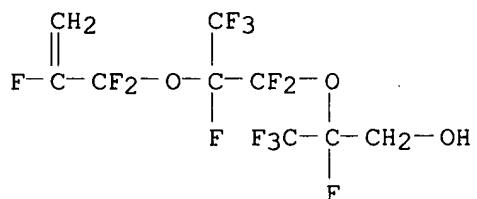
RN 174083-00-2 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-(pentafluoroethoxy)propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

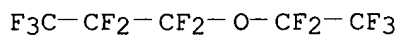
CMF C9 H5 F13 O3



CM 2

CRN 66840-50-4

CMF C5 F12 O



CM 3

CRN 116-14-3

CMF C2 F4



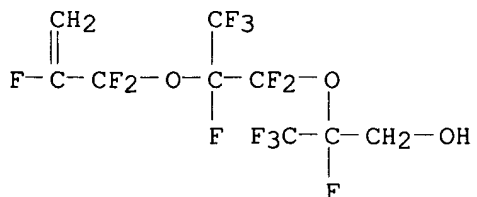
RN 174083-01-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

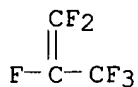
CMF C9 H5 F13 O3



CM 2

CRN 116-15-4

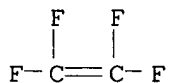
CMF C3 F6



CM 3

CRN 116-14-3

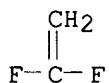
CMF C2 F4



CM 4

CRN 75-38-7

CMF C2 H2 F2



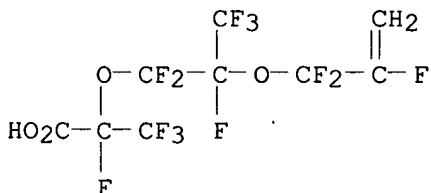
RN 174083-02-4 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

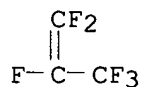
CMF C9 H3 F13 O4



CM 2

CRN 116-15-4

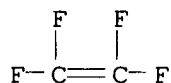
CMF C3 F6



CM 3

CRN 116-14-3

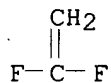
CMF C2 F4



CM 4

CRN 75-38-7

CMF C2 H2 F2



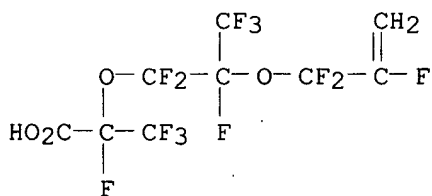
RN 174083-03-5 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with ammonia, chlorotrifluoroethene, 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

CMF C9 H3 F13 O4



CM 2

CRN 7664-41-7

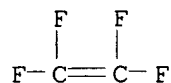
CMF H3 N

NH₃

CM 3

CRN 116-14-3

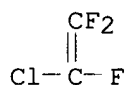
CMF C2 F4



CM 4

CRN 79-38-9

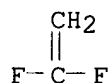
CMF C2 C1 F3



CM 5

CRN 75-38-7

CMF C2 H2 F2



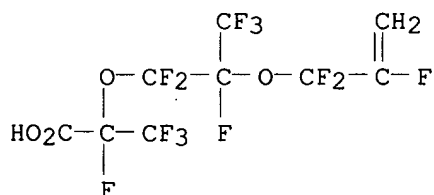
RN 174083-04-6 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-(pentafluoroethoxy)propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

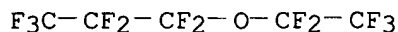
CRN 174082-84-9

CMF C9 H3 F13 O4



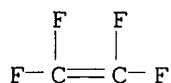
CM 2

CRN 66840-50-4
CMF C5 F12 O



CM 3

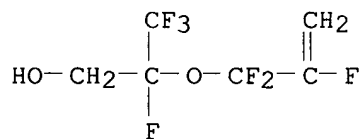
CRN 116-14-3
CMF C2 F4



RN 174268-12-3 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]-,
polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

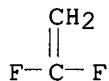
CM 1

CRN 174082-81-6
CMF C6 H5 F7 O2



CM 2

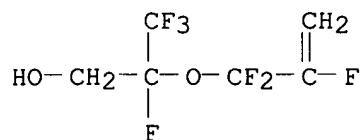
CRN 75-38-7
CMF C2 H2 F2



RN 174268-13-4 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]-,
polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

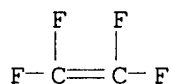
CM 1

CRN 174082-81-6
CMF C6 H5 F7 O2



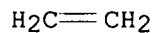
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

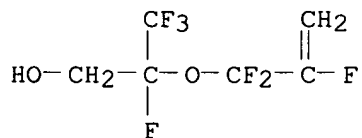
CRN 74-85-1
CMF C2 H4



RN 174268-14-5 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]-,
polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and
tetrafluoroethene (9CI) (CA INDEX NAME)

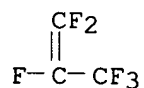
CM 1

CRN 174082-81-6
CMF C6 H5 F7 O2



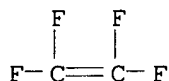
CM 2

CRN 116-15-4
CMF C3 F6



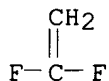
CM 3

CRN 116-14-3
CMF C2 F4



CM 4

CRN 75-38-7
CMF C2 H2 F2



=> D HIS L40-

(FILE 'REGISTRY' ENTERED AT 10:27:06 ON 31 DEC 2002)
SAVE L39 TEMP ZIT936S/A

L40 66 S L39 AND 2-10/NC

FILE 'HCAPLUS' ENTERED AT 10:44:51 ON 31 DEC 2002

L41 47 S L40
L42 1 S L41 AND L27
L43 44 S L41(L) (PREP OR IMF OR SPN)/RL
SET COST OFF

FILE 'REGISTRY' ENTERED AT 10:48:42 ON 31 DEC 2002

FILE 'HCAPLUS' ENTERED AT 10:48:47 ON 31 DEC 2002

L44 3 S L41 NOT L43

=> D L44 1-3 BIB ABS HITSTR

3 CA references which are not preparative

L44 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:778583 HCAPLUS

DN 133:352637

TI Polymer electrolytes and secondary lithium ion batteries using the electrolytes

IN Utakgawa, Reiko

PA Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

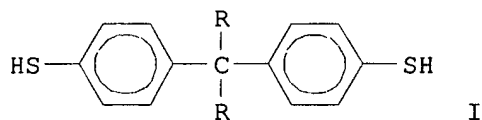
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000311711	A2	20001107	JP 1999-158471	19990426

PRAI JP 1999-158471 19990426
 OS MARPAT 133:352637
 GI



AB Polymer electrolytes for secondary Li batteries contain a li salt, a solvent for the salt, and a halogen contg. copolymer crosslinked by F contg. dithiol HS(CF₂)_nSH (n = 2-20 integer) or I (R =CF₃, C₂F₅, or C₃F₇), using aliph. primary diamine as crosslinking catalyst.

IT 305862-32-2

RL: DEV (Device component use); USES (Uses)
 (polymer electrolytes contg dithiol crosslinked halogen contg.
 copolymers for secondary lithium batteries)

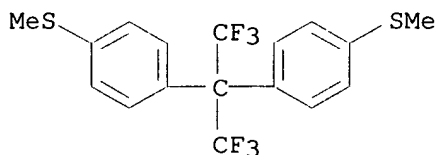
RN 305862-32-2 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with chlorotrifluoroethene, 1,1-difluoroethene, (ethenyloxy)cyclohexane and 1,1'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4-(methylthio)benzene] (9CI) (CA INDEX NAME)

CM 1

CRN 305862-30-0

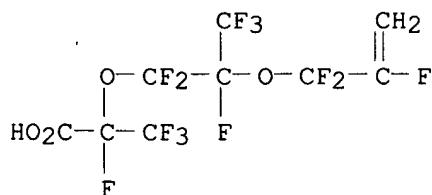
CMF C17 H14 F6 S2



CM 2

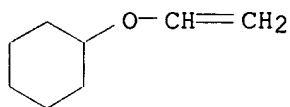
CRN 174082-84-9

CMF C9 H3 F13 O4



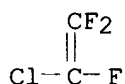
CM 3

CRN 2182-55-0
CMF C8 H14 O



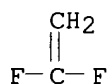
CM 4

CRN 79-38-9
CMF C2 C1 F3



CM 5

CRN 75-38-7
CMF C2 H2 F2



L44 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:627361 HCAPLUS

DN 129:233141

TI Fluoropolymer packaging materials for solar cells

IN Araki, Takayuki; Tanaka, Yoshihito; Kumegawa, Masahiro; Oka, Noritosi;
Sanemasa, Hisato; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10256580	A2	19980925	JP 1997-59599	19970313
PRAI	JP 1997-59599		19970313		

AB The materials are copolymers contg. 0.05-30 mol% F contg. ethylenic monomers having hydroxyl, carboxyl, carboxylic, carboxylate ester, and/or epoxy groups and 70-99.5 mol% F contg. ethylenic monomers without those function groups. The functional group contg. monomers are preferably CX₂:CX'RY, where Y = CH₂OH, CO₂H, carboxylate salt, carboxylate ester, or epoxy group, X and X' are H or F, R = C1-40 divalent F contg. alkylene group, C1-40 F contg. oxyalkylene group, C1-40 ether group contg. F contg. alkylene group, or C1-40 ether group contg. F contg. oxyalkylene group; and the function group free monomers contain 85-99.7 mol% C₂F₄ and 0.3-15

mol% CF₂:CFR', where R' = CF₃ or OR'' and R'' = C1-5 perfluoroalkyl group. The materials are used as front cover films, transparent fillers, and seals for solar cell modules.

IT 192575-94-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(compsn. of and manuf. of fluoropolymer packaging materials for solar cells)

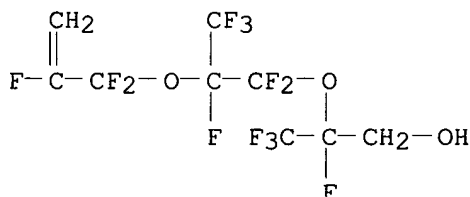
RN 192575-94-3 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

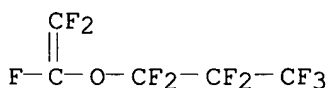
CMF C9 H5 F13 O3



CM 2

CRN 1623-05-8

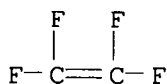
CMF C5 F10 O



CM 3

CRN 116-14-3

CMF C2 F4



IT 212957-09-0 212957-10-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fluoropolymer packaging materials for solar cells)

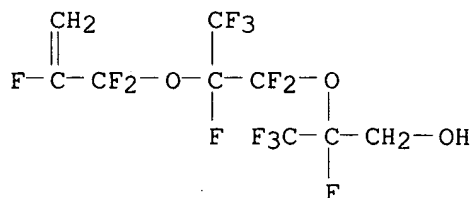
RN 212957-09-0 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with ethene,

2,3,3,4,4,5,5-heptafluoro-1-pentene and tetrafluoroethene (9CI) (CA INDEX NAME)

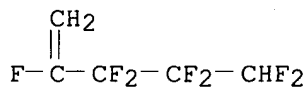
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



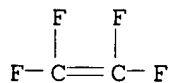
CM 2

CRN 1547-26-8
CMF C5 H3 F7



CM 3

CRN 116-14-3
CMF C2 F4



CM 4

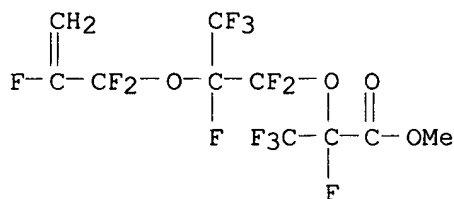
CRN 74-85-1
CMF C2 H4



RN 212957-10-3 HCAPLUS
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, polymer with ethene, 2,3,3,4,4,5,5-heptafluoro-1-pentene and tetrafluoroethene (9CI) (CA INDEX NAME)

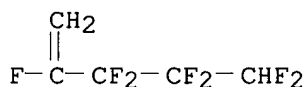
CM 1

CRN 174082-83-8
CMF C10 H5 F13 O4



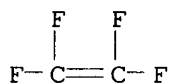
CM 2

CRN 1547-26-8
CMF C5 H3 F7



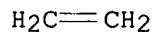
CM 3

CRN 116-14-3
CMF C2 F4



CM 4

CRN 74-85-1
CMF C2 H4



L44 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1997:522497 HCAPLUS
DN 127:124066
TI Binders for secondary nonaqueous electrolyte battery electrodes
IN Kiyomi, Tetsuo; Nakamura, Takayuki; Ino, Tadashi; Ichikawa, Kenji; Araki, Takayuki; Tanaka, Yoshito; Tohata, Yoshihide
PA Daikin Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09161804	A2	19970620	JP 1995-320571	19951208
PRAI	JP 1995-320571		19951208		

AB The binders are copolymers contg. 0.05-30 mol% of .gtoreq.1 F contg. ethylenic monomers having hydroxy, carboxyl, carboxylate salt, carboxylate ester, or epoxy groups. The binder is a copolymer contg. 0.05-30 mol% CX2: CX'RfY (Y = CH2OH, COOH, carboxylate salt, carboxylate ester, or epoxy group; X and X' are H or F; Rf is bivalent C1-40 F contg. alkylene group or bivalent C1-40 F contg. alkylene group having ether bonding) and 70-99.95 mol% functional group free F contg. ethylenic monomer copolymerizable with the functional group contg. monomer. The functional group contg. monomer is preferably CH2:CFCF2Rf'Y, where Rf' is bivalent C1-39 F contg. alkylene group or bivalent C1-39 F contg. alkylene group having ether bonding and the functional group free monomer is selected from C2F4 and its mixts. with other fluoro monomers. Batteries using these binders have long cycle life.

IT 174082-93-0 174082-94-1 174082-97-4
174083-01-3 174083-02-4 192750-94-0
RL: DEV (Device component use); USES (Uses)
(comps. of fluoro copolymer binders for electrodes in secondary lithium batteries)

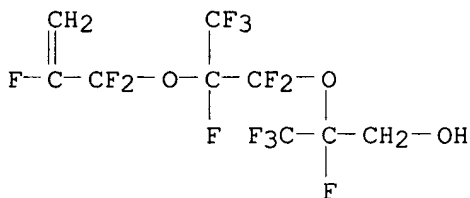
RN 174082-93-0 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
(CA INDEX NAME)

CM 1

CRN 174082-85-0

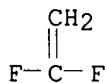
CMF C9 H5 F13 O3



CM 2

CRN 75-38-7

CMF C2 H2 F2

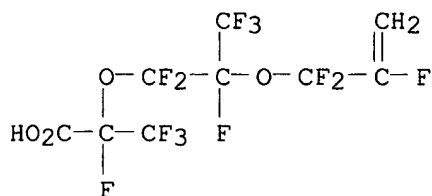


RN 174082-94-1 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene (9CI)
(CA INDEX NAME)

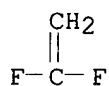
CM 1

CRN 174082-84-9
CMF C9 H3 F13 O4



CM 2

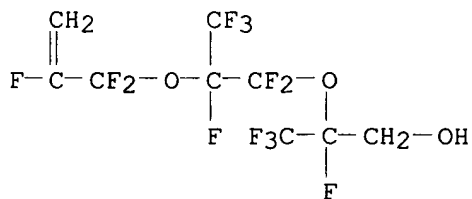
CRN 75-38-7
CMF C2 H2 F2



RN 174082-97-4 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

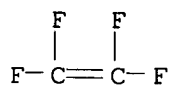
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



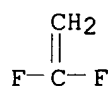
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

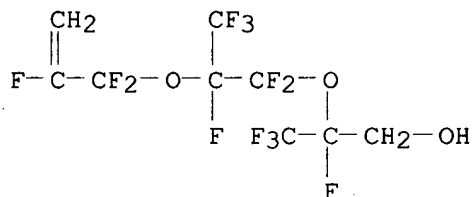
CRN 75-38-7
CMF C2 H2 F2



RN 174083-01-3 HCAPLUS
CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

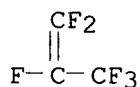
CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



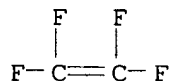
CM 2

CRN 116-15-4
CMF C3 F6



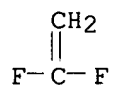
CM 3

CRN 116-14-3
CMF C2 F4



CM 4

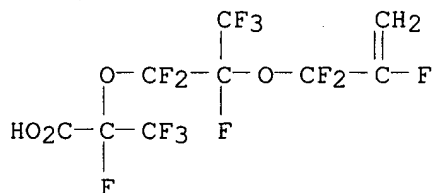
CRN 75-38-7
CMF C2 H2 F2



RN 174083-02-4 HCAPLUS
 CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

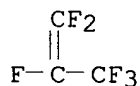
CM 1

CRN 174082-84-9
 CMF C9 H3 F13 O4



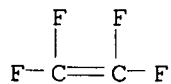
CM 2

CRN 116-15-4
 CMF C3 F6



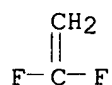
CM 3

CRN 116-14-3
 CMF C2 F4



CM 4

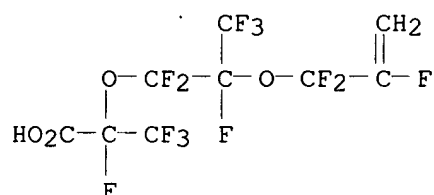
CRN 75-38-7
 CMF C2 H2 F2



RN 192750-94-0 HCAPLUS
 CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, polymer with 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

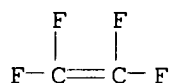
CM 1

CRN 174082-84-9
 CMF C9 H3 F13 O4



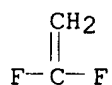
CM 2

CRN 116-14-3
 CMF C2 F4

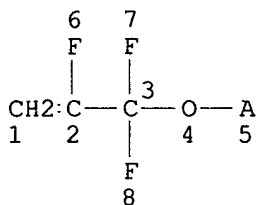


CM 3

CRN 75-38-7
 CMF C2 H2 F2



=> D QUE L46
 L31 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

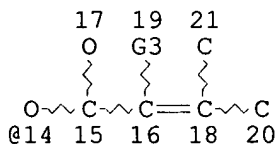
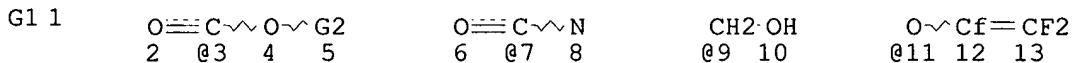
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L33 SCR 2043

L35 86 SEA FILE=REGISTRY SSS FUL L31 AND L33

L37 STR



VAR G1=3/7/9/11/14

VAR G2=AK/H

VAR G3=F/H/CL/CF3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L39 72 SEA FILE=REGISTRY SUB=L35 SSS FUL L37

L45 6 SEA FILE=REGISTRY ABB=ON L39 AND 1/NC

L46 6 SEA FILE=HCAPLUS ABB=ON L45

=> D L46 1-6 BIB ABS HITSTR

1 component polymers

L46 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:889052 HCAPLUS

DN 137:377225

TI Nonlinear optical material containing fluoropolymer

IN Araki, Takayuki; Tanaka, Yoshito; Ohashi, Mihoko; Komatsu, Yuzo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 111 pp.

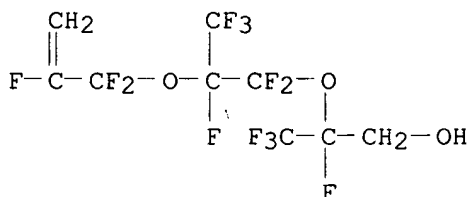
CODEN: PIXXD2

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002093249	A1	20021121	WO 2002-JP4729	20020516
	W: CN, JP, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	JP 2001-147649	A	20010517		
AB	The invention refers to a fluoro-resein compn. for use in nonlinear optical materials comprising a fluoro-prepolymer and an org. compd. having a 2nd- or higher-order, nonlinear optical effect, wherein the fluoro-prepolymer (I) is a noncryst. polymer having F content of .gtoreq. 25% and has a C-C double bond in a polymer side chain or at the end of the polymer backbone, in order allow the fluoro-prepolymer to form a stable structure with the nonlinear optical compd. and to produce nonlinear optical waveguides with transparency in the near IR.				
IT	292163-49-6P RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (nonlinear optical material contg. fluoropolymer)				
RN	292163-49-6 HCAPLUS				
CN	1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)				

CM 1

CRN 174082-85-0
CMF C9 H5 F13 O3



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS
AN 2002:716383 HCAPLUS
DN 137:255142
TI Optical materials comprising curable fluoropolymers for optical communication
IN Araki, Takayuki; Tanaka, Yoshito; Sakai, Mihoko
PA Daikin Industries, Ltd., Japan
SO PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072706	A1	20020919	WO 2002-JP1770	20020227
	W: JP, US				

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, TR

PRAI JP 2001-64770 A 20010308

AB Optical materials being transparent at visible and near IR regions contain amorphous fluoropolymers contg. >25% F and having curable parts in the side chains or end groups and ions or compds. of rare earth elements. Thus, a core for an optical amplifier contained 2.00 g .alpha.-fluoroacrylic acid fluoride-perfluoro-(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonanol) copolymer and 0.60 g Eu(OAc)3.cntdot.4H2O.

IT 292163-49-6P

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(optical materials comprising curable fluoropolymers and rare earth metals for optical communication)

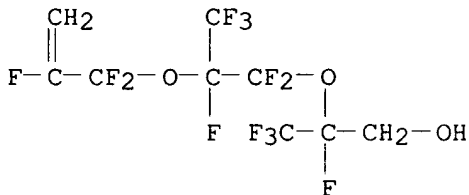
RN 292163-49-6 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

CMF C9 H5 F13 O3



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:716376 HCAPLUS

DN 137:255141

TI Optical materials containing functional fluoropolymers for optical communication

IN Araki, Takayuki; Tanaka, Yoshito; Komatsu, Yuzo; Andou, Yoshihito

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072696	A1	20020919	WO 2002-JP2057	20020306
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-64771 A 20010308

AB Optical materials contain fluoropolymers and rare earth metal ions, and the fluoropolymers have .gtoreq.1 ketone structure in a side chain and max. value of absorption coeff. .ltoreq.1 cm-1 in the wavelength ranges 1,290 -1,320, 1,530-1,570, and 600-900 nm and the rare earth metal ions

are .gtoreq.1 of Er, Tm, Pr, Ho, Nd, and Eu. Thus, a core for an optical amplifier element contained 2.09 g poly(9H,9H-perfluoro-2,5-dimethyl-3,6-dioxa-8-nonanoic acid) and 0.62 g Eu(OAc)₃.cntdot.4H₂O.

IT 292163-48-5P

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(optical materials contg. functional fluoropolymers and rare earth ions for optical communication)

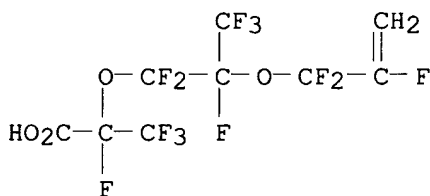
RN 292163-48-5 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

CMF C9 H3 F13 O4



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:658168 HCAPLUS

DN 137:186340

TI Hydroxyl- or fluoroalkylcarbonyl-containing ethylenic fluoromonomers and their fluoropolymers

IN Araki, Takayuki; Komatsu, Yuzo; Koh, Meiten

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002066526	A1	20020829	WO 2002-JP1518	20020221
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRAI JP 2001-49248 A 20010223

JP 2001-49249 A 20010223

OS MARPAT 137:186340

AB The hydroxyl- or fluoroalkylcarbonyl-contg. ethylenic fluoromonomer CX₁X₂:CX₃(Rf₃)aC(Rf₁)(Rf₂)OH and CX₁X₂:CX₃(Rf₃)aCORf₁ (X₁, X₂ = H, F; X₃ = H, F, Cl, CF₃; Rf₁, Rf₂ = C₁-20 perfluoroalkyl; Rf₃ = C₁-40 fluoroalkylene, fluoroalkylene with C₁-100 and O.gtoreq.2 ether bond; and a = 0 or 1) has good polymerizability, esp. radical polymerizability. photoresists. The monomer has satisfactory polymerizability, esp. radical polymerizability. The polymers obtained from the above monomers have good optical properties and are useful for antireflection films or photoresist compns.

IT 292163-49-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (hydroxyl- or fluoroalkylcarbonyl-contg. ethylenic fluoromonomers and their fluoropolymers for antireflection films or photoresist compns.)

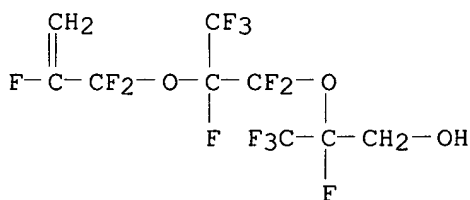
RN 292163-49-6 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

CMF C9 H5 F13 O3



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:171969 HCAPLUS

DN 136:233006

TI Radiation-curable fluoropolymer compositions and antireflection films made from them

IN Araki, Takayuki; Sakai, Mihoko; Tanaka, Yoshito; Shimizu, Tetsuo

PA Daikin Industries, Ltd., Japan

SO PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018457	A1	20020307	WO 2001-JP7344	20010828
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	JP 2000-259583	A	20000829		
	JP 2000-303723	A	20001003		
	JP 2001-73025	A	20010314		
AB	The compns. contain curable fluoropolymers of -A-M- type [M = CX1X2CRX3 provided that R = (CX4X5)a(C:O)bOcrf; where X1 and X2 each is H or F; X3 is H, F, CH3, or CF3; and X4 and X5 each is H, F, or CF3; Rf is an org. group consisting of a C1-40 fluoroalkyl group or C2-100 fluoroalkyl group having an ether bond and, bonded to the fluoroalkyl group, one to three Y1s (Y1 is a C2-10 monovalent org. group having an ethylenically unsatd. C-C double bond at a terminal); a = 0-3; b, c = 0 or 1; A = a structural unit derived from a monomer copolymerizable with the ethylenic fluoromonomer represented by the formula M] at 0.1-100 mol M and 0-99.9 mol A, and having a no.-av. mol. wt. of 500 to 1,000,000. Thus, mixing 20.4 g perfluoro(1,1,9,9-tetrahydro-2,5-bistrifluoromethyl-3,6-dioxanonenol) with 21.2 g a 8.0% [H(CF2CF2)3COO]2 perfluorohexane soln.				

under N at 20.degree. for 24 h gave a polymer (I) having no.-av. mol. wt. (Mn) 9000 and wt.-av. mol. wt. (Mw) 22,000. Dissolving 5.0 g the I with 1.0 g pyridine in 80 mL Et2O, cooling to 5.degree., adding 1.0 g CH2:CF3COF dissolved in 20 mL over 30 min while flushing with N and stirring, warming to room temp., mixing for 4 h and working up gave a modified I which can be cured by UV radiation in the presence of a photoinitiator.

IT 402831-52-1P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(curable fluoropolymer compns. and antireflection films made from them)

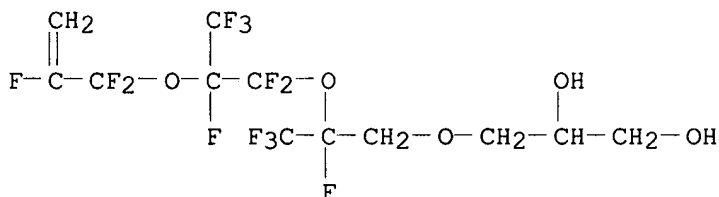
RN 402831-52-1 HCAPLUS

CN 1,2-Propanediol, 3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 402831-50-9

CMF C12 H11 F13 O5



IT 292163-49-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(curable fluoropolymer compns. and antireflection films made from them)

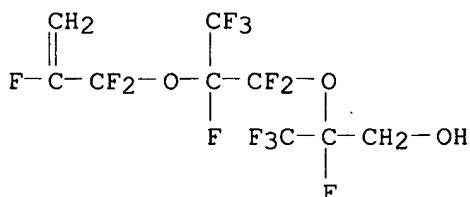
RN 292163-49-6 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

CMF C9 H5 F13 O3



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:646052 HCAPLUS

DN 133:223204

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

DT	Patent
LA	Japanese

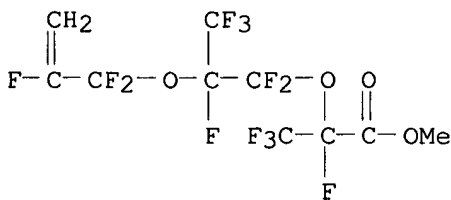
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000053647	A1	20000914	WO 2000-JP1453	20000310
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1167397	A1	20020102	EP 2000-907985	20000310
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

AB A fluorinated allyl ether polymer which consists only of chains made up of at least one kind of structural units represented by general formula $[\text{CH}_2\text{CF}(\text{CF}_2\text{OA})]$ (wherein A represents a C1-100 org. group) and has a no.-av. mol. wt. of 1,000 to 1,000,000. Thus $\text{CH}_2:\text{CFCH}_2\text{OCF}(\text{CF}_3)\text{CF}_2\text{OCF}(\text{CF}_3)\text{CO}_2\text{CH}_3$ 5 g was polymd. under radical polymn. conditions using $[\text{H}(\text{CF}_2\text{CF}_2)_3\text{CO}_2-]_2$ as initiator to give 4.67 g of a colorless transparent polymer with no.-av. mol. wt. 68000, T_g -2.degree., and refractive index 1.3132.

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(fluorinated allyl ether polymer)

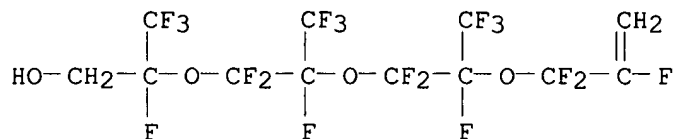
CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CRN 174082-83-8
CMF C10 H5 F13 O4



CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CRN 292163-46-3
CMF C12 H5 F19 O4



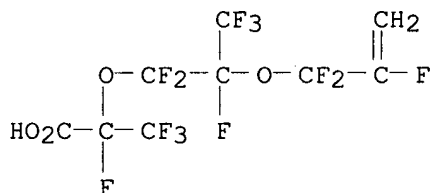
RN 292163-48-5 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-84-9

CMF C9 H3 F13 O4



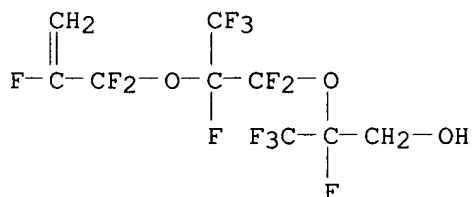
RN 292163-49-6 HCAPLUS

CN 1-Propanol, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-85-0

CMF C9 H5 F13 O3



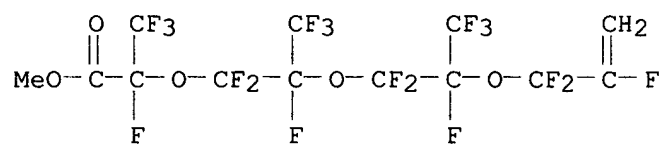
RN 292163-50-9 HCAPLUS

CN Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[(1,1,2-trifluoro-2-propenyl)oxy]propoxy]propoxy]-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 174082-87-2

CMF C13 H5 F19 O5



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT